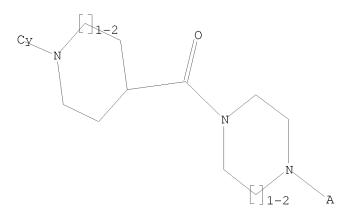
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(FILE 'HOME' ENTERED AT 09:57:06 ON 15 OCT 2008)

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FILE 'REGISTRY' ENTERED AT 09:57:22 ON 15 OCT 2008
                STRUCTURE UPLOADED
L1
             50 S L1
L2
           1564 S L1 SSS FUL
L3
L4
        1210301 S 46.383.1/RID
L5
        1546736 S 46.156.1/RID
L6
          57566 S L4 AND L5
           1381 S L3 AND L6
L7
            183 S L3 NOT L7
L8
          55956 S 110.130.1/RID
L9
            178 S L8 AND L9
L10
L11
              5 S L8 NOT L10
L12
           1559 S L3 NOT L11
L13
            685 S L12 AND CAPLUS/LC
L14
            874 S L12 NOT L13
     FILE 'CAPLUS' ENTERED AT 10:00:22 ON 15 OCT 2008
L15
             42 S L3
             39 S L15 NOT (2008/SO OR 2007/SO OR 2006/SO OR 2005/SO)
L16
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=> d 11

L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> d ibib abs hitstr total

SOURCE:

L16 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:380877 CAPLUS

DOCUMENT NUMBER: 148:403232

TITLE: Preparation of (heteroaryl)benzoxazinone derivatives

for use as serine hydrolase inhibitors

INVENTOR(S): Shreder, Kevin; Hu, Yi; Fraser, Allister; Kohno,

Yasushi; Kojima, Akihiko; Ishiyama, Junichi

PATENT ASSIGNEE(S): Activx Biosciences, Inc., USA; Kyorin Discovery

Research Laboratories PCT Int. Appl., 141pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.						KIND DATE			APPL	ICAT		DATE					
WO	2008	0363	79		A2				1	WO 2007-US20427						20070920		
			-		_		AU,		BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
		•	•		•	•	CZ,	•		•	•	•	•			•		
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	
		KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,	
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW					
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
		ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	
		GH,	GM,	KΕ,	LS,	MW,	MZ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	AZ,	
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	AP,	EA,	EP,	OA						
US	US 20080161290						2008	0703	1	US 2	007-	9034	83	20070920				
PRIORIT	PRIORITY APPLN. INFO.:								1	US 2	006-	8465	45P	]	P 20060921			
OTHER SO	OTHER SOURCE(S):					MARPAT 148:403232												

$$(R^6)_n$$
 $(R^7)_n$ 
 $(R^7)_n$ 

AΒ Title compds. I [A = heterocyclyl or heteroaryl connected to the benzoxazine core by a carbon; R1 = OR3, SR3, NO2, or NR4R5; R2 = halo, pseudohalo, alkenyl, cycloalkyl, etc.; R3 = alkyl, alkynyl, heterocyclyl, etc.; R4 and R5 independently = H, alkyl, cycloalkyl, aryl, etc. with at least one of R4 or R5 not hydrogen; or together with N which they are attached form (un)substituted heterocyclyl or heteroaryl; R6 independently = halo, OH, formyl, diaminoalkyl, etc.; R7 independently = thia, mercapto, polyhaloalkyl, etc.; n independently = 0 to 6; with provisions that when A = 3-pyridinyl and R2 = halo or Me, then R1 is not 2-phenoxy;], and their pharmaceutically acceptable salts, are prepared and disclosed as serine hydrolase inhibitors. Thus, e.g., II was prepared by heterocyclization of 2-fluoronicotinic acid with 2-amino-6-ethyl-4-methoxybenzoic acid (preparation given) followed by substitution with (S)-(-)-3-(dimethylamino) pyrrolidine. Select I were evaluated in a human sputum neutrophil elastase assay, e.g., II demonstrated an IC50 value of  $\leq$  15 (nM). ΙT 1015443-32-9P

Ι

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of (heteroaryl)benzoxazinone derivs. for use as serine hydrolase inhibitors)

RN 1015443-32-9 CAPLUS

CN 4H-3,1-Benzoxazin-4-one, 5-ethyl-7-methoxy-2-[2-[4-methyl-4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-3-pyridinyl]- (CA INDEX NAME)

L16 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1238701 CAPLUS

DOCUMENT NUMBER: 147:502346

TITLE: Preparation of azolecarboxamide derivatives as trkA

receptor inhibitors

INVENTOR(S): Sugasawa, Keizo; Kawaguchi, Kenichi; Matsuzawa,

> Takaho; Seo, Ryushi; Harada, Hironori; Suga, Akira; Abe, Tomoaki; Azami, Hidenori; Matsumoto, Shunichiro;

Shin, Takashi; Tanahashi, Masayuki; Watanabe, Toru

PATENT ASSIGNEE(S): Astellas Pharma Inc., Japan

SOURCE: PCT Int. Appl., 234pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT :	NO.			KIND DATE					APPL	ICAT		DATE					
 WO	2007	1232	 69		A1	_	 2007	1101	,	WO 2	007-		20070419					
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		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	
		GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚM,	
		KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,	
		MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	
		RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,	
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW							
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
		ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$\mathrm{ML}$ ,	MR,	NE,	SN,	TD,	ΤG,	BW,	
		GH,	GM,	KΕ,	LS,	MW,	MZ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	$_{ m TM}$										
PRIORITY	APP	LN.	INFO	.:					JP 2006-115481						A 20060419			

OTHER SOURCE(S): MARPAT 147:502346

GΙ

$$\begin{array}{c|c}
A & O \\
N & N \\
N & N \\
N & N \\
R2
\end{array}$$

Ι

ΙI

AΒ Title compds. I [X = S or O; A = (un) substituted phenylene,(un) substituted pyridinediyl, (un) substituted pyrimidinediyl, etc.; Q = (un) substituted aliphatic mono or bi-heterocycle containing nitrogen atom; R1 = halo, alkylcarbonyl, (un)substituted alkyl, etc.; R2 = -H, halo or saturated heterocycle containing nitrogen atom] or salts thereof were prepared For example, hydrolysis of 2-(3-furyl)-1,3-thiazole-4-carboxylic acid Et ester followed by WSC·HCl mediated amidation with 1-(2-aminophenyl)-4-piperidinecarboxamide afforded compound II. In neurotropic factor receptors inhibition assays, the exemplified compound II showed the IC50 value of 2.4 nM. Compds. I are claimed useful for the treatment of urinary frequency, urinary incontinence, etc. ΙT 955383-18-3P 955386-03-5P 955389-18-1P 955389-26-1P 955389-30-7P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of azolecarboxamide derivs. as trkA receptor inhibitors)

RN 955383-18-3 CAPLUS
CN 4-Thiazolecarboxamide, N-[2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1piperidinyl]phenyl]-2-phenyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 955386-03-5 CAPLUS

CN 4-Thiazolecarboxamide, N-[2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-3-pyridinyl]-2-(4-morpholinyl)- (CA INDEX NAME)

RN 955389-18-1 CAPLUS

CN 4-Oxazolecarboxamide, N-[2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-3-pyridinyl]-2-(4-morpholinyl)- (CA INDEX NAME)

RN 955389-26-1 CAPLUS

CN 4-Oxazolecarboxamide, N-[2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-3-pyridinyl]-2-(4-morpholinyl)- (CA INDEX NAME)

RN 955389-30-7 CAPLUS

CN 4-Oxazolecarboxamide, 2-(4-morpholinyl)-N-[2-[4-[(4-propyl-1-piperazinyl)carbonyl]-1-piperidinyl]-3-pyridinyl]- (CA INDEX NAME)

REFERENCE COUNT:

31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1025544 CAPLUS

DOCUMENT NUMBER: 147:323017

TITLE: Preparation of aromatic compounds such as

N-(2-phenoxypyridin-5-yl) benzamides as collagen synthesis inhibitors for preventing and/or treating

fibrosis

INVENTOR(S): Fukushima, Tae; Takemura, Noriaki; Tai, Kuninori;

Nagao, Hitoshi; Ito, Nobuaki; Nakagawa, Takashi; Takasu, Hideki; Watanabe, Kenji; Matsumura, Shuji; Shizuta, Takuya; Sakamoto, Makoto; Suga, Keizo; Miyajima, Keisuke; Tanaka, Masanori; Sato, Hideaki; Tsutsui, Hironori; Yamada, Satoshi; Kojima, Hiroshi;

Yasumura, Koichi; Oi, Naoto; Okuno, Tsuguhiro;

Sugiyama, Kazuhisa; Kiyono, Kunihiko; Suzuki, Takashi; Akamatsu, Seiji; Kodama, Kenji; Yanagihara, Yasuo;

Sumida, Takumi

PATENT ASSIGNEE(S): Ohtsuka Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 707pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2007231005 A 20070913 JP 2007-21396 20070131
PRIORITY APPLN. INFO.: JP 2006-25329 A 20060202

OTHER SOURCE(S): MARPAT 147:323017

GΙ

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. I [X1 = N, CH; R1 = ZR6 (wherein Z = CO, CH(OH), etc.; R6 = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R2 = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph or naphthyl] are prepared These compds. have an excellent effect of suppressing the generation of collagen and less side effects. They are useful for preventing and/or treating fibrosis, in particular lung fibrosis and hepatic fibrosis, and glomerulosclerosis. Thus, 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid was condensed with with 1-benzylpiperazine to give compound (II). Collagen synthesis inhibitory activity was tested in human stellate cell line (LI90). For example, N-[6-[4-[4-[2-oxo-2-(4-piperonylpiperazin-1-y1)ethyl]piperidin-1-yl]phenoxy]pyridin-3-yl]-4-trifluoromethylbenzamide (III) showed IC50 of 0.0019 μM in the above assay. A film coating tablet formulation containing III was prepared

IT 875674-04-7P 875674-05-8P 875674-17-2P 875674-18-3P 875680-56-1P 875680-57-2P 875680-58-3P 875680-59-4P 875680-60-7P 875680-61-8P 875680-62-9P 875680-63-0P 875680-68-5P 875680-72-1P 875680-73-2P

## 10/553,803

875694-98-7P 875699-36-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(2-phenoxypyridin-5-yl) benzamides as collagen synthesis inhibitors for preventing and/or treating fibrosis)

RN 875674-04-7 CAPLUS

CN Benzamide, 3,4-dichloro-N-[4-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]- (CA INDEX NAME)

$$\begin{array}{c} C1 \\ C1 \\ NH-C \end{array}$$

RN 875674-05-8 CAPLUS

CN Benzamide, N-[4-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]-3,4-dichloro- (CA INDEX NAME)

PAGE 1-B

RN 875674-17-2 CAPLUS

CN Benzamide, 3,4-dichloro-N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875674-18-3 CAPLUS

CN Benzamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 875680-56-1 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[4-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875680-57-2 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-58-3 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-B

RN 875680-59-4 CAPLUS

CN Benzenesulfonamide, N-[6-[2-methyl-4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-60-7 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-3,4-dichloro- (CA INDEX NAME)

RN 875680-61-8 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[2-methyl-4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875680-62-9 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

RN 875680-63-0 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-A

ONCH2

SNH
N
N
CH2

PAGE 1-B

RN 875680-68-5 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-5-bromo-N-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)

F3C

PAGE 1-A

NH—S

N

NBr

RN 875680-72-1 CAPLUS

CN Benzamide, N-[6-[4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-73-2 CAPLUS

CN Benzamide, N-[6-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-B

RN 875694-98-7 CAPLUS

CN Benzenesulfonamide, N-methyl-N-[6-[2-methyl-4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4- (trifluoromethyl)- (CA INDEX NAME)

RN 875699-36-8 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-N-[4-(trifluoromethyl)phenyl]-(CA INDEX NAME)

L16 ANSWER 4 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:644412 CAPLUS

DOCUMENT NUMBER: 147:72807

TITLE: Preparation of N-(2-phenoxypyridin-5-yl) benzamides

and their analogs for treating cancer

INVENTOR(S): Matsuyama, Hironori; Ohnishi, Kenji; Nakagawa,

> Takashi; Takasu, Hideki; Sakamoto, Makoto; Higuchi, Kumi; Miyajima, Keisuke; Yamada, Satoshi; Motoyama, Masaaki; Kojima, Yutaka; Yasumura, Koichi; Kodama, Takeshi; Otsuji, Shun; Kan, Keizo; Sumida, Takumi

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 1110pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT :			KIN	D	DATE		APP	LIC	CAT		DATE							
	2007 2007									WO 2006-JP324610				20061204					
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							HR,												
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU	ί, Ι	LV,	LY,	MA,	MD,	MG,	MK,	MN,	
		MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	ΝZ	, (	MC,	PG,	PH,	PL,	PT,	RO,	RS,	
		RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV	,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	
		UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ΖW	Ī								
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		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PΤ	, E	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML	, l	MR,	NE,	SN,	TD,	ΤG,	BW,	GH,	
		GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ	, :	ΓZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ТJ,	TM,	AP,	EA,	EP	, (	AC							
AU	2006	3237	00		A1		2007	0614		AU 2006-323700							0061	204	
CA	2630	468			A1		2007	0614	CA 2006-2630468							20061204			
JP	2007	1824	33		Α		2007	0719	JP 2006-327612							20061204			
EP	1957	073			A2		2008		EΡ	200	06-8	33436	65		2	0061	204		
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE	, E	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	NL,	PL	, E	PΤ,	RO,	SE,	SI,	SK,	TR		
MX	2008	0684	9		Α		2008	0611		MΧ	200	08-6	5849			2	0800	528	
KR	2008	0700	54		Α		2008	0729		KR	200	08-	7134	51		2	0800	604	
IORIT	ORITY APPLN. INFO.:									JΡ	200	05-3	3512	55	1	A 2	0051	205	
										WO	200	06-0	JP246	510	1		0061		
										WO	200	06-0	JP32	4610	1	W 2	0061	204	
HER SOURCE(S):					MARPAT 147:72807														

OTHER SOURCE(S): MARPAT 147:72807

GΙ

$$R^{1}$$
 $X^{1}$ 
 $Y-A$ 

AB The title compds. I [X1 = N, CH; R1 = ZR6 (wherein Z = CO, CH(OH), etc.; R6 = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R2 = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph, naphthyl], useful as antitumor agents, were prepared and formulated. Thus, reacting 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid with 1-benzylpiperazine afforded II. Compds. I were tested for anti-cancer effect on cancer cells (data given for representative compds. I).

17.
875674-04-7P 875674-05-8P 875674-17-2P
875674-18-3P 875680-56-1P 875680-57-2P
875680-58-3P 875680-59-4P 875680-60-7P
875680-61-8P 875680-62-9P 875680-63-0P
875680-68-5P 875680-72-1P 875680-73-2P
875694-98-7P 875699-36-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(2-phenoxypyridin-5-yl) benzamides for treating cancer) 875674-04-7 CAPLUS

CN Benzamide, 3,4-dichloro-N-[4-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]- (CA INDEX NAME)

RN 875674-05-8 CAPLUS

CN Benzamide, N-[4-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-

RN

piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]-3,4-dichloro- (CA INDEX NAME)

PAGE 1-B

RN 875674-17-2 CAPLUS
CN Benzamide, 3,4-dichloro-N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875674-18-3 CAPLUS
CN Benzamide, N-[6-[4-[4-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

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CH2

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C1

PAGE 1-B

RN 875680-56-1 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875680-57-2 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-58-3 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

10/553,803

PAGE 1-B

RN 875680-59-4 CAPLUS

CN Benzenesulfonamide, N-[6-[2-methyl-4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-60-7 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-3,4-dichloro- (CA INDEX NAME)

RN 875680-61-8 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[2-methyl-4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875680-62-9 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

PAGE 1-B

RN 875680-63-0 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-68-5 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-5-bromo-N-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)

PAGE 1-A

ON-CH2

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PAGE 1-B

RN 875680-72-1 CAPLUS

CN Benzamide, N-[6-[4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-73-2 CAPLUS

CN Benzamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 875694-98-7 CAPLUS

CN Benzenesulfonamide, N-methyl-N-[6-[2-methyl-4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875699-36-8 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-N-[4-(trifluoromethyl)phenyl]-(CA INDEX NAME)

PAGE 1-A

L16 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:61837 CAPLUS

DOCUMENT NUMBER: 146:156236

TITLE: Cellular cholesterol absorption modifiers, and their

therapeutic use

INVENTOR(S): Gardiner, Elisabeth M.; Duron, Sergio G.; Massari,

Mark E.; Severance, Daniel L.; Semple, Joseph E.

PATENT ASSIGNEE(S): Kalypsys, Inc., USA SOURCE: PCT Int. Appl., 300pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	PATENT NO.						DATE		APPL	ICAT		DATE						
WO WO					A2 A3		20070118 20070726		1	WO 2006-US26242						20060705		
	W: RW:	CN, GE, KR, MW, SC, US, AT, IS, CF, GM,	CO, GH, KZ, MX, SD, UZ, BE, IT, CG, KE,	CR, GM, LA, MZ, SE, VC, BG, LT, CI, LS,	CU, HN, LC, NA, SG, VN, CH, LU, CM, MW,	CZ, HR, LK, NG, SK, ZA, CY, LV, GA, MZ,	AU, DE, HU, LR, NI, SL, ZM, CZ, MC, GN, NA,	DK, ID, LS, NO, SM, ZW DE, NL, GQ, SD,	DM, IL, LT, NZ, SY, DK, PL, GW, SL,	DZ, IN, LU, OM, TJ, EE, PT, ML, SZ,	EC, IS, LV, PG, TM, ES, RO, MR, TZ,	EE, JP, LY, PH, TN, FI, SE, NE,	EG, KE, MA, PL, TR, FR, SI, SN,	ES, KG, MD, PT, TT, GB, SK, TD,	FI, KM, MG, RO, TZ, GR, TR,	GB, KN, MK, RS, UA, HU, BF, BW,	GD, KP, MN, RU, UG, IE, BJ, GH,	
PRIORITY	Y APP			,	RU,	TJ,	TM,	AP,	, 1 1	US 2 US 2 US 2 US 2	OA 005-0 005-0 005-0 005-1	] ] ]	P 2 P 2 P 2	0050 0050 0050 0051 0060	708 708 017			

OTHER SOURCE(S): MARPAT 146:156236

AB The invention discloses compds. and methods useful as inhibitors of cholesterol absorption for the treatment or prevention of vascular disease and atherosclerosis.

IT 920529-13-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cholesterol absorption modifiers and therapeutic use)

RN 920529-13-1 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(2-benzothiazolylmethyl)-4-[4-[4-(4-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

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PAGE 2-A

L16 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:61157 CAPLUS

DOCUMENT NUMBER: 146:163140

TITLE: Heterocyclic sulfonamide derivatives as inhibitors of

Factor Xa, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Alstermark, Christer; Amin, Kosrat; Andersson, Kjell;

Fahlander, Ulf; Granberg, Kenneth; Hovdal, Daniel

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. SOURCE: PCT Int. Appl., 85pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						DATE		APPLICATION NO.							DATE		
WC		A1 20070118				 WO 2	006-		20060705									
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	KP,	
		KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,	
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	
		US,	UZ,	VC,	VN,	ZA,	ZM,	ZW										
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
		KG,	KZ,	MD,	RU,	ΤJ,	TM	•	•	,	•	•	•	,	,	•	•	
IN	2008	DN00	079	·	A	·	2008	0704		IN 2	008-	DN79			20080103			
US	2008	0200	431		A1		2008	0821		US 2	008-	9948	44		2	0080	107	
	RIORITY APPLN. INFO.:									SE 2						0050	708	
										WO 2	006-	SE84	0		W 2	0060	705	
OTHER S	, ,					CASREACT 146:163140; MARPAT 146:163140												

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to heterocyclic sulfonamides of formula I, which are inhibitors of Factor Xa. In compds. I, W, X, Y, and Z are independently selected from carbon and nitrogen, where at least one of W, X, Y, and Z is nitrogen and the bond between X and Y is a single bond or a double bond; n is 0-3; each R1 is independently H, halo, C1-3 alkyl, oxo, oxy, oxido, or thioxo; R2 is H or oxo; AB is CH2CH2 or CH=CH; m is 0-3; each R3 is independently selected from H, OH, oxo, C1-5 alkyl, carboxy, cyano, tetrazolyl, oxazolyl, C1-5 hydroxyalkyl, etc.; and R4 is H, halo, Me, or amino. The invention also relates to the preparation of compds. I, pharmaceutical compns. comprising a compound I and a pharmaceutically acceptable diluent or carrier, as well as to their use as antithrombotic or anticoagulant agents. Substitution of 6-chloro-2-methyl-2H-pyridazin-3-one with piperidine-4-carboxylic acid gave acid II, which was amidated with N-Boc-N'-allylethylenediamine and

deprotected to give amine III. Sulfonylation of III with 1-benzenesulfonyl-3-chloro-1H-indole-6-sulfonyl chloride followed by deprotection, oxidation, and heterocyclization resulted in the formation of IV. The compds. of the invention are inhibitors of Factor Xa, e.g., compound IV expressed an IC50 value of 4.8 nM in an anticoagulant activity assay.

IT 919536-14-4P, 6-[4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)-3 hydroxypiperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one
 919536-42-8P, 6-[4-[[4-((1H-Indol-6-yl)sulfonyl)piperazin-1 yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one
 919536-56-4P, 4-[[4-((1H-Indol-6-yl)sulfonyl)piperazin-1 yl]carbonyl]-3,4,5,6-tetrahydro-2H-[1,4']bipyridine
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (drug candidate; preparation of heterocyclic sulfonamide derivs. as
 inhibitors of Factor Xa)

RN 919536-14-4 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-3-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-42-8 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-(1H-indol-6-ylsulfonyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-56-4 CAPLUS

CN Methanone, [4-(1H-indol-6-ylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

919536-20-2P, 6-[4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)-2-ΙT hydroxypiperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one 919536-34-8P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1yl]carbonyl]-5'-methyl-3,4,5,6-tetrahydro-2H,1'H-[1,3']bipyridinyl-6'-one 919536-38-2P, 5-[4-[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-ylcarbonyl]piperidin-1-yl]-3-methyl-1H-pyrazin-2-one 919536-41-7P, 6-[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one 919536-47-3P, 6-[4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]piperidin-1-yl]-2H-pyridazin-3-one 919536-51-9P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]-1'-oxido-3, 4, 5, 6-tetrahydro-2H-[1, 4']bipyridine 919536-53-1P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]-2'-methyl-3, 4, 5, 6-tetrahydro-2H-[1, 4']bipyridine 919536-54-2P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]-3'-chloro-3, 4, 5, 6-tetrahydro-2H-[1, 4']bipyridine 919536-55-3P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1-yl]carbonyl]-3,4,5,6tetrahydro-2H-[1,4']bipyridine RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (drug candidate; preparation of heterocyclic sulfonamide derivs. as inhibitors of Factor Xa) RN 919536-20-2 CAPLUS CN 3(2H) -Pyridazinone, 6-[4-[(4-[(3-chloro-1H-indol-6-yl))sulfonyl]-2-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-34-8 CAPLUS
CN 2(1H)-Pyridinone, 5-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-3-methyl- (CA INDEX NAME)

RN 919536-38-2 CAPLUS

CN 2(1H)-Pyrazinone, 5-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-3-methyl- (CA INDEX NAME)

RN 919536-41-7 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-47-3 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 919536-51-9 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(1-oxido-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 919536-53-1 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 919536-54-2 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(3-chloro-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ &$$

RN 919536-55-3 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & &$$

IT 919536-37-1P, 4-[[4-((3-Chloro-1H-indol-6-yl)sulfonyl)piperazin-1yl]carbonyl]-6'-methoxy-5'-methyl-3,4,5,6-tetrahydro-2H-[1,3']bipyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(intermediate; preparation of heterocyclic sulfonamide derivs. as inhibitors of Factor Xa)

RN 919536-37-1 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(6-methoxy-5-methyl-3-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

L16 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

2007:58329 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 146:163137

TITLE: Heterocyclic sulfonamide derivatives as inhibitors of

Factor Xa, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Alstermark, Christer; Amin, Kosrat; Andersson, Kjell;

Chen, Yantao; Fahlander, Ulf; Foote, Kevin Michael;

Granberg, Kenneth; Hovdal, Daniel

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. PCT Int. Appl., 127pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE			APPI	ICAT		DATE				
WO	2007	A1	_	20070118			 WO 2	2006-	 SE83	 7		20060705					
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KM,	KN,	KP,
		KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VC,	VN,	ZA,	ZM,	ZW									
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	${ m MZ}$ ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM										
IN	2008	DN00	078		Α		2008	0704		IN 2008-DN78					2	0800	103
US	2008	0214	495		A1		2008	0904		US 2	2008-	9948	46		2	0800	107
PRIORIT	PRIORITY APPLN. INFO.:									SE 2	2005-	1616			A 2	0050	708
										WO 2	2006-	SE83	7		W 2	0060	705
OTHER S	OTHER SOURCE(S):					PAT	146:	1631	37								

GΙ

The invention relates to heterocyclic sulfonamides of formula I, which are inhibitors of Factor Xa. In compds. I, X is O or S; Y and Z are independently selected from carbon and nitrogen; n is 0, 1, or 2; each R1 is independently H or C1-3 alkyl; A and B are each selected from carbon and nitrogen, where at least one of A and B is nitrogen; R2 is H or oxo; L1 is an aliphatic, partially saturated, or aromatic carbocyclic ring containing 0, 1,

or 2 nitrogen atoms; m is 0, 1, or 2; each R4 is independently selected from H, OH, oxo, C1-5 alkyl, carboxy, hydroxy-C1-5 alkyl, carboxy-C1-5 alkyl, carbamoyl, C1-5 alkylcarbamoyl, etc.; L2 is a bond, C1-4 alkylene, or C2-6 alkenylene; and R3 is optionally halo-substituted aryl ring containing 0, 1, or 2 heteroatoms. The invention also relates to the preparation of compds. I, pharmaceutical compns. comprising a compound I and a

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

pharmaceutically acceptable diluent or carrier, as well as to their use as antithrombotic or anticoagulant agents. Substitution of 6-chloro-2-methyl-2H-pyridazin-3-one with piperidine-4-carboxylic acid gave acid II, which was amidated with N-Boc-N'-allylethylenediamine and deprotected to give amine III. Sulfonylation of III with 1-benzenesulfonyl-3-chloro-1H-indole-6-sulfonyl chloride followed by deprotection, oxidation, and heterocyclization resulted in the formation of IV. The compds. of the invention are inhibitors of Factor Xa, e.g., compound IV expressed an IC50 value of 4.8 nM in an anticoagulant activity assay.

IT 919536-14-4P, 6-[4-[[4-(((3-Chloro-1H-indol-6-yl)sulfonyl))-3 hydroxypiperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one
 919536-42-8P, 6-[4-[[4-(((1H-Indol-6-yl)sulfonyl))piperazin-1 yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (drug candidate; preparation of heterocyclic sulfonamide derivs. as
 inhibitors of Factor Xa)

RN 919536-14-4 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-3-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-42-8 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-(1H-indol-6-ylsulfonyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

919792-66-8P, 6-[4-[[4-[[(E)-2-(5-Bromothien-2yl)ethene]sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]-2H-pyridazin-3one 919792-71-5P, 6-[4-[[4-[[(E)-1-(5-Chlorothien-2-yl)prop-1-en-2-yl]sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]-2H-pyridazin-3-one 919793-05-8P, 6-[4-[[4-[(6-Chloronaphthalen-2yl)sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one 919793-07-0P, 6-[4-[4-(5-Chloro-1H-indol-2yl)sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one 919793-08-1P, 6-[4-[[4-[[(E)-2-(5-Chlorothien-2-(yl)ethene]sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2Hpyridazin-3-one 919793-10-5P, 6-[4-[4-[4-(5-Chloro-1H-indol-2-yl)]]-3-hydroxypiperazin-1yl]carbonyl]piperidin-1-yl]-2-methyl-2H-pyridazin-3-one 919793-15-0P, 6-[4-[(5-Chloro-1H-indol-2-yl)] sulfonyl]piperazin-1-yl]carbonyl]piperidin-1-yl]pyridazin-3(2H)-one RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of heterocyclic sulfonamide derivs. as inhibitors of Factor Xa)

RN 919536-20-2 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-2-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-34-8 CAPLUS

CN 2(1H)-Pyridinone, 5-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-3-methyl- (CA INDEX NAME)

RN 919536-38-2 CAPLUS

CN 2(1H)-Pyrazinone, 5-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-3-methyl- (CA INDEX NAME)

RN 919536-41-7 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919536-47-3 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 919792-66-8 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[[(1E)-2-(5-bromo-2-thienyl)ethenyl]sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 919792-71-5 CAPLUS

CN 3(2H) -Pyridazinone, 6-[4-[[4-[[(1E)-2-(5-chloro-2-thienyl)-1-

methylethenyl]sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 919793-05-8 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919793-07-0 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(5-chloro-1H-indol-2-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

$$\begin{array}{c|c} H & O & N & C & N \\ N & S & N & N & O \\ N & Me & N & N & N \\ \end{array}$$

RN 919793-08-1 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[[(1E)-2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl-(CA INDEX NAME)

Double bond geometry as shown.

RN 919793-10-5 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(5-chloro-1H-indol-2-yl)sulfonyl]-3-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl- (CA INDEX NAME)

RN 919793-15-0 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[(5-chloro-1H-indol-2-yl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c|c}
H & O & N & C \\
N & S & N & C
\end{array}$$

IT 919536-37-1P, 4-[[4-(((3-Chloro-1H-indol-6-yl)sulfonyl))piperazin1-yl]carbonyl]-6'-methoxy-5'-methyl-3,4,5,6-tetrahydro-2H-[1,3']bipyridine
919792-76-0P, 4-[[1-(6-0xo-1,6-dihydropyridazin-3-yl)piperidin-4yl]carbonyl]piperazine-1-carboxylic acid tert-butyl ester
919793-13-8P, 6-[4-[[4-[[1-(Benzenesulfonyl)-5-chloro-1H-indol-2yl]sulfonyl]-3-hydroxypiperazin-1-yl]carbonyl]piperidin-1-yl]-2-methyl-2Hpyridazin-3-one 919793-16-1P,
5-Chloro-2-[[4-[[1-(6-chloropyridazin-3-yl)piperidin-4yl]carbonyl]piperazin-1-yl]sulfonyl]-1H-indole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
 (intermediate; preparation of heterocyclic sulfonamide derivs. as inhibitors of Factor Xa)

## 10/553,803

RN 919536-37-1 CAPLUS

CN Methanone, [4-[(3-chloro-1H-indol-6-yl)sulfonyl]-1-piperazinyl][1-(6-methoxy-5-methyl-3-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 919792-76-0 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(1,6-dihydro-6-oxo-3-pyridazinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 919793-13-8 CAPLUS

CN 3(2H)-Pyridazinone, 6-[4-[[4-[[5-chloro-1-(phenylsulfonyl)-1H-indol-2-yl]sulfonyl]-3-hydroxy-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methyl-(CA INDEX NAME)

RN 919793-16-1 CAPLUS

CN Methanone, [4-[(5-chloro-1H-indol-2-yl)sulfonyl]-1-piperazinyl][1-(6-chloro-3-pyridazinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## 10/553,803

L16 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:192756 CAPLUS

DOCUMENT NUMBER: 144:274288

TITLE: Preparation of pyrazolopyrimidine compounds as SK

channel blockers

INVENTOR(S): Takamuro, Iwao; Sekine, Yasuo; Tsuboi, Yasunori;

Noshiro, Hiroshi; Taniguchi, Hiroyuki

PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 298 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2006056884 PRIORITY APPLN. INFO.:	A	20060302	JP 2005-210978 JP 2004-216519 A	20050721 20040723		
OTHER SOURCE(S): GI	MARPAT	144:274288				

$$R^{1} = 0$$

AB Title compds. I [R1 = substituted aryl, (un)substituted aliphatic heteromonocycle containing N, substituted cycloalkyl, etc.; R2 = (un)substituted heteroaryl, (un)substituted aryl; Y = single bond, alkylene, alkenylene; Z = -CO-, -CH2-, -SO2-, etc.; Q = alkylene; q = 0, 1] were prepared For example, hydrolysis of 4-[N-(cyclopropylcarbonyl)-N-[2-(dimethylamino)ethyl]amino]benzoic acid Et ester, e.g., prepared from 4-fluorobenzoic acid Et ester in 3 steps, followed by EDCI mediated amidation with

ΙT

RN

 $1\text{-}(3\text{-}\text{ethoxybenzyl})\text{-}4\text{-}\text{piperazin}\text{-}1\text{-}\text{yl}\text{-}1\text{H}\text{-}\text{pyrazolo}\text{[3,4-d]pyrimidine}\text{\cdot}2\text{HCl}$  afforded compound II [R = cyclopropyl]. In 125I-apamin binding inhibition assays, IC50 value of compound II [R = methyl] hydrochloride was 0.06  $\mu\text{M}$ . Compds. I are claimed useful for the treatment of irritable bowel disease, Alzheimer type-dementia, etc. 733771-87-4P 733773-94-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidine compds. as SK channel blockers for treatment of irritable bowel disease, Alzheimer type-dementia, etc.) 733771-87-4 CAPLUS

CN Methanone, [4-[1-[(3-ethoxyphenyl)methyl]-1H-pyrazolo[3,4-d]pyrimidin-4-yl]-1-piperazinyl][1-(2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 733773-94-9 CAPLUS

CN Methanone, (1-cyclopentyl-4-piperidinyl)[4-[1-[(3-ethoxyphenyl)methyl]-1H-pyrazolo[3,4-d]pyrimidin-4-yl]-1-piperazinyl]- (CA INDEX NAME)

L16 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:117353 CAPLUS

DOCUMENT NUMBER: 144:212803

TITLE: Preparation of aromatic compounds such as

N-(2-phenoxypyridin-5-yl) benzamides for treating

fibrosis

INVENTOR(S): Fukushima, Tae; Matsumura, Shuji; Takemura, Noriaki;

Satou, Hideaki; Ito, Nobuaki; Shitsuta, Takuya; Tsutsui, Hironori; Tanaka, Michinori; Kan, Keizo; Nagao, Hitoshi; Watanabe, Kenji; Tai, Kuninori; Nakagawa, Takashi; Takasu, Hideki; Sakamoto, Makoto; Miyajima, Keisuke; Yamada, Satoshi; Kojima, Yutaka; Yasumura, Koichi; Ohi, Naoto; Okuno, Mitsuhiro;

Sugiyama, Kazuhisa; Kiyono, Kunihiko; Suzuki, Takashi; Akamatsu, Seiji; Kodama, Takeshi; Yanagihara, Yasuo;

Sumida, Takumi

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 1055 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE				APPL	ICAT:		DATE						
						2 20060209 3 20061207			1	wo 2			611	20050803				
WO																		
	W:	ΑE,	ΑG,	ΑL,	ΑM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KP,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NG,	
		ΝI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	
		SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	
		ZM,	ZW															
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	
		GM,	KE,	LS,	MW.	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
					RU,			,	•	·	•	·	,	,	,	,	r	
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	R:	AT,	BE,	BG.	CH.	CY.	CZ.	DE.	DK,	EE,	ES,	FI.	FR.	GB,	GR,	HU.	IE,	
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CN	1993	339	•	·	А		2007	0704	(	CN 2	005-	8002	6696		2	0050	803	
BR	2005	0141	50		А		2007			BR 2	005-	1415	0		2	0050	803	
	2006						2006	1102			005-					0050		
	4154						2008											
IN	2007	KN00	107		А		2007	0629		IN 2	007-1	KN10	7		2	0070	109	
	2007		5		A		2007	0417	]	MX 2	007-	1215			2	0070	130	
	2007		51		A		2007:				007-							
	2007						2007:				007-					0070		
	2008						2008				007-					0071		
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WO 2005-JP14611 W 20050803 JP 2005-229066 A3 20050808

OTHER SOURCE(S): MARPAT 144:212803

GΙ

$$R^{1}$$
 $Y-A$ 
 $X^{1}$ 

AB The title compds. I [X1 = N, CH; R1 = ZR6 (wherein Z = CO, CH(OH), etc.; R6 = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R2 = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph, naphthyl], which have an excellent effect of suppressing the generation of collagen and less side effects, with being excellent in terms of safety, were prepared and formulated. Thus, reacting 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid with 1-benzylpiperazine afforded II. Collagen synthesis inhibitory activity

1-benzylpiperazine afforded II. Collagen synthesis inhibitory activity was tested in LI90 cells, a human stellate cell line (data given for representative compds. I).

IT 875674-04-7P 875674-05-8P 875674-17-2P

875674-18-3P 875680-56-1P 875680-57-2P

875680-58-3P 875680-59-4P 875680-60-7P

875680-61-8P 875680-62-9P 875680-63-0P

875680-68-5P 875680-72-1P 875680-73-2P

875694-98-7P 875699-36-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(2-phenoxypyridin-5-yl) benzamides for treating fibrosis)

RN 875674-04-7 CAPLUS

CN Benzamide, 3,4-dichloro-N-[4-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]- (CA INDEX NAME)

RN 875674-05-8 CAPLUS

CN Benzamide, N-[4-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]phenyl]-3,4-dichloro- (CA INDEX NAME)

PAGE 1-B

RN 875674-17-2 CAPLUS

CN Benzamide, 3,4-dichloro-N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875674-18-3 CAPLUS

CN Benzamide, N-[6-[4-[4-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

PAGE 1-A

O
N
CH2

C1
C1

RN 875680-56-1 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[4-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

C1 O CH2-Ph

RN 875680-57-2 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

Ph-CH<sub>2</sub> O N NH-S CF3

RN 875680-58-3 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-B

RN 875680-59-4 CAPLUS

CN Benzenesulfonamide, N-[6-[2-methyl-4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-60-7 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-2-methylphenoxy]-3-pyridinyl]-3,4-dichloro- (CA INDEX NAME)

PAGE 1-B

RN 875680-61-8 CAPLUS

CN Benzenesulfonamide, 3,4-dichloro-N-[6-[2-methyl-4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]- (CA INDEX NAME)

RN 875680-62-9 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-3,4-dichloro-(CA INDEX NAME)

PAGE 1-B

RN 875680-63-0 CAPLUS

CN Benzenesulfonamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-B

RN 875680-68-5 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-5-bromo-N-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)

PAGE 1-A

ON-CH2

F3C

Br

PAGE 1-B

RN 875680-72-1 CAPLUS

CN Benzamide, N-[6-[4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875680-73-2 CAPLUS

CN Benzamide, N-[6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 875694-98-7 CAPLUS

CN Benzenesulfonamide, N-methyl-N-[6-[2-methyl-4-[4-[[4-(phenylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-3-pyridinyl]-4-(trifluoromethyl)- (CA INDEX NAME)

RN 875699-36-8 CAPLUS

CN 3-Pyridinesulfonamide, 6-[4-[4-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenoxy]-N-[4-(trifluoromethyl)phenyl]-(CA INDEX NAME)

PAGE 1-A

L16 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1350335 CAPLUS

DOCUMENT NUMBER: 144:88307

TITLE: Preparation of quinazoline derivatives as CCR4

function controllers

INVENTOR(S): Kawano, Noriyuki; Ishikawa, Noriko; Kaizawa, Hiroyuki;

Masuda, Naoyuki; Hamaguchi, Wataru; Koganemaru, Yohei;

Kato, Koji; Miyazaki, Takahiro

PATENT ASSIGNEE(S): Astellas Pharma Inc., Japan

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						DATE			APPL	ICAT		DATE				
W(	2005	005123697			A1 200			1229		WO 2	005-		20050617				
	W:	ΑE,	ΑG,	AL,	ΑM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	ΝI,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙT,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	ΝE,	SN,	TD,	ΤG											
JI	JP 2007269629						2007	1018		JP 2	004-	1830	86		2	0040	621
PRIORI:	PRIORITY APPLN. INFO.:									JP 2	004-	1830	86		A 2	0040	621
OTHER S	OTHER SOURCE(S):					PAT	144:	8830	7								
GT																	

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

- AB Title compds. I [R1 = alkyl, OH, halo, etc.; m = 0-2; A = (un)substituted phenyl; (un)substituted monocyclic cycloalkyl; R2, R3 = H, alkyl; n =1, 2; X = bond, alkylene; B = optionally substituted mono or bicyclic nitrogenous heterocycle with alkyl, alkenyl, halo, etc., CR5R6NR7R8; R5, R6 = H, alkyl, cycloalkyl, etc.; R7, R8 = H, alkyl, monocyclic cycloalkyl, etc.] were prepared For example, WSC·HCl mediated acylation of N-(4-chloro-2-fluorophenyl)-2-(1,4-diazepan-1-yl)-6,7-dimethoxyquinazolin-4-amine dihydrochloride, e.g., prepared from 2,4-dichloro-6,7-dimethoxyquinazoline in 2 steps, with (S)-[1-(tert-butoxycarbonyl)pyrrolidin-2-yl]acetic acid followed by treatment with HCl afforded compound II·2HCl. In GTPγS binding assays, the IC 50 value of compound II·2HCl was 63 nM. Compds. I are claimed useful for the treatment of inflammation, autoimmune diseases, etc.
- IT 872105-98-1P
   RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

RN 872105-98-1 CAPLUS

CN Methanone, [4-[4-[(4-chloro-2-fluorophenyl)amino]-6,7-dimethoxy-2-quinazolinyl]-1-piperazinyl][1-(2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1346207 CAPLUS

DOCUMENT NUMBER: 144:88172

TITLE: Preparation of hetero isonipecotic modulators of

vanilloid VR1 receptor

INVENTOR(S): Gaul, Michael D.; Zhao, Bao-Ping; Hutta, Daniel A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 40 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	PATENT NO.						DATE		APPL	ICAT	ION :	DATE				
US 2005									US 2							
AU 2005	25994	17		A1		2006	0112		AU 2	005-		20050627				
CA 2572	075			A1		2006	0112		CA 2	005-		20050627				
WO 2006	00479	93		A2 20060112				WO 2	005-		20050627					
WO 2006	00479	93		А3		20060406										
W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KΖ,
	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
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	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
	ZA,	ZM,	ZW													
RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,
	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	GM,
	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	KG,
	KZ,	MD,	RU,	ΤJ,	TM	,		·	·	·	·		,	·	,	,
EP 1768	959			A2		2007	0404		EP 2	005-	7877	54		2	0050	627
R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
	•	•	•	•	,	MC,	•	•		•	•	•	•	•	,	•
PRIORITY APE	PRIORITY APPLN. INFO.:						,	•	US 2	•	•	•	•		0040	628
<del></del>		•	•	WO 2005-US23008												
OTHER SOURCE	OTHER SOURCE(S):						MARPAT 144:88172									

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AB The title compds. I [ring HET = 4-8 membered cyclic heteroalkyl bonded to the rest of the mol. through a ring N atom and optionally containing 1-2 heteroatoms in addition to ring N atom, 5-10 membered heteroaryl bonded to the rest of the mol. through a ring N atom; Y = H, OH, aryl, etc.; n = 0-4; Ar = Ph, naphthyl, 5-6 membered heteroaryl, etc.] that are potent modulators of VR1 which are useful for the treatment and prevention of disease conditions in mammals, were prepared and disclosed. E.g., the title compound II, was prepared from Et isonipecotate, o-tolyl bromide and thiomorpholine. II showed EC50 of 0.23  $\mu\rm M$  in human VR1 functional assay.

IT 872417-23-7P 872417-24-8P 872417-90-8P 872417-91-9P 872417-92-0P 872417-93-1P 872417-94-2P 872417-95-3P 872417-96-4P 872417-97-5P 872418-22-9P RL: PAC (Pharmacological activity); SPN (Syn

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hetero isonipecotic modulators of vanilloid VR1 receptor)  $872417-23-7 \;\; \text{CAPLUS}$ 

CN Ethanone, 1-[4-[(1-[1,1'-biphenyl]-3-yl-4-piperidinyl)carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-24-8 CAPLUS

CN Ethanone, 1-[4-[[1-(2,3-dimethylphenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN

RN 872417-90-8 CAPLUS

CN Ethanone, 1-[4-[[1-(1-isoquinolinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-91-9 CAPLUS

CN Ethanone, 1-[4-[[1-(2-methylphenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-92-0 CAPLUS

CN Ethanone, 1-[4-[[1-(3-fluoro-4-methylphenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-93-1 CAPLUS

CN Ethanone, 1-[4-[[1-(3-methylphenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]-(CA INDEX NAME)

RN 872417-94-2 CAPLUS

CN Ethanone, 1-[4-[[1-(3,5-difluorophenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-95-3 CAPLUS

CN Ethanone, 1-[4-[[1-(3-methoxyphenyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-96-4 CAPLUS

CN Ethanone, 1-[4-[[1-[3-(trifluoromethyl)phenyl]-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872417-97-5 CAPLUS

CN Ethanone, 1-[4-[[1-(3,6-dimethyl-2-pyrazinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 872418-22-9 CAPLUS

CN Methanone, [1-(2,3-dimethylphenyl)-4-piperidinyl](4-ethyl-1-piperazinyl)- (CA INDEX NAME)

L16 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:696920 CAPLUS

DOCUMENT NUMBER: 143:193856

TITLE: Preparation of rifamycin derivatives for use in

antibiotic pharmaceutical compositions which are

effective against drug-resistant microbes

INVENTOR(S): Ma, Zhenkun; Jin, Yafei; Li, Jing; Ding, Charles Z.;

Minor, Keith P.; Longgood, Jamie C.; Kim, In Ho; Harran, Susan; Combrink, Keith; Morris, Timothy W.

PATENT ASSIGNEE(S): Cumbre Inc., USA

SOURCE: PCT Int. Appl., 141 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P	ATENT	NO.			KIND		DATE		APPLICATION NO.							DATE			
			-		A2 20050804 A3 20050929			,	WO 2	20050112									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,		
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NA,	NI,		
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,		
		ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW	: BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,		
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,		
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	ΙT,	LT,	LU,	MC,	NL,	PL,	PT,		
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,		
		,	ΝE,		,														
U	S 200	50261	262		A1		2005	1124		US 2	005-	3419	5		2	0050	112		
		7634					2007	0724											
E:	P 173	0154			A2		2006	1213		EP 2	005-	7055	50		2	0050	112		
	R:	ΑT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,		
		IS,	ΙT,	LI,	LT,	LU,	MC,	ΝL,	PL,	PT,	RO,	SE,	SI,	SK,	TR				
PRIORI'	TY AP	PLN.	INFO	.:						US 2	004-	5359	90P		P 2	0040	113		
							WO 2005-US943							•	W 2	0050	112		
OTHER GI	OTHER SOURCE(S): GI					REAC	T 14	3:19	3856; MARPAT 143:193856										

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Rifamycin S and SV derivs., such as I and II [X = bond, heterocyclic and/or heteroacyclic linking group; A = antibacterial agent or its pharmacophore], were prepared and were claimed for therapeutic use as antibacterial agents. The inventive rifamycin derivs. were uniquely designed in that they have a rifamycin moiety covalently linked to a linker group through the C-3 carbon of the rifamycin moiety and the linker is, in turn covalently linked to a therapeutic moiety or antibacterial agent/pharmacophore. The therapeutic moiety can be a quinolone, an oxazolidinone, a macrolide, an aminoglycoside, a tetracycline core or a structure/pharmacophore associated with an antibacterial agent. Thus,

rifamycin S derivative III was prepared via a condensation reaction with 10% yield of 3-bromorifamycin S with sodium ciprofloxacin. The prepared rifamycin derivs, were assayed for antimicrobial activity organisms such as Staphylococcus aureus.

IT 861805-67-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of rifamycin derivs. for use in antibiotic pharmaceutical compns. which are effective against drug-resistant microbes)

RN 861805-67-6 CAPLUS

CN Rifamycin, 3-[4-[[4-(3-carboxy-1-cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-4-oxo-7-quinolinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-1,4-dideoxy-1,4-dihydro-1,4-dioxo-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as described by E or Z.

PAGE 1-B

L16 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:369273 CAPLUS

DOCUMENT NUMBER: 142:430299

TITLE: Preparation of novel piperidine and

cyclohexanecarbonitrile derivatives effective in

enhancing LDL receptor manifestation

INVENTOR(S): Ban, Hitoshi; Ohnuma, Satoshi; Tsuboya, Norie; Asano,

Shigehiro

PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan

SOURCE: PCT Int. Appl., 209 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE				ICAT:		DATE				
WO	2005	0372	 69		A1 20050428									20041019			
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
		SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,
		SN,	TD,	ΤG													
EP	1679	069			A1 20060712					EP 2	004-	7929:	20041019				
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	FI,	RO,	CY,	TR,	BG,	CZ,	EE,	HU,	PL,	SK				
US	2007	0078	120		A1		2007	0405		US 2	006-	5765	81		2	0060	420
PRIORIT	PRIORITY APPLN. INFO.:			. :						JP 2	003-	3612	56	Ā	A 2	0031	021
										WO 2	004-	JP15	773	Ī	w 2	0041	019
OTHER SOURCE(S):				MARPAT 142:43029				99									

AB Drugs for enhancing LDL receptor manifestation contains compds. represented by the following formula (I), prodrugs thereof, or pharmaceutically acceptable salts of either [m, n, p = 0-4, provided that  $3 \le m+n \le 8$ ; X = N, each (un)substituted CH; Y = each

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(un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, or aromatic group, COY;
R1 = H, each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, 3- to
8-membered saturated heterocyclyl containing one (un)substituted NH or O,
aromatic

group, COR14; R14 = each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, or aromatic group; R2-R7 = H, OH, each (un)substituted alkyl, alkoxy, alkoxycarbonyl, aralkyl, heteroarylalkyl, aralkyloxy, or heteroarylalkyloxy; or one or a plural combination of R2 and R3, R4 and R5, or R6 and R7 = oxo; or R2 and R4 together = alkylene; two of R2-R5 are on the adjacent carbon atom to form a double bond; Z = H, OH, CO2H, cyano, phthalimido, halo, each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, or aromatic group, etc.] as active ingredients. These compds. are effective in enhancing low d. lipoprotein (LDL) receptor manifestation and lowering blood concentration of LDL cholesterol and are useful as therapeutic

agents for treating hyperlipemia and arteriosclerosis. Thus, 0.019 mL benzyl bromide was added to a suspension of 40 mg 4-(3-methoxyphenyl)-1,4'-bipiperidine-4-carbonitrile dihydrochloride and 92.6 mg K2CO3 in 1.0 mL DMF under ice-cooling, and the resulting mixture was warmed to room temperature, stirred overnight, and quenched by adding water to give, after workup and silica gel chromatog., 15.6 mg 1'-benzyl-4-(3-methoxyphenyl)-1,1'-bipiperidine-4-carbonitrile (II). II at 10  $\mu\text{M}$  and N-benzyl-4-(3-methoxyphenyl)-1-(pyrimidin-2-yl)piperidine-4-carbothioamide at 3  $\mu\text{M}$  enhanced the LDL receptor activity by 135 and 195%, resp.

IT 850885-07-3P, 2-[4-(3-Methoxyphenyl)-4-[(4-phenylpiperazin-1yl)carbonyl]piperidin-1-yl]pyrimidine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of novel piperidine and cyclohexanecarbonitrile derivs. as enhancers for LDL receptor manifestation, hypolipidemics, and antiarteriosclerotics)

RN 850885-07-3 CAPLUS

CN Methanone, [4-(3-methoxyphenyl)-1-(2-pyrimidinyl)-4-piperidinyl](4-phenyl-1-piperazinyl)- (CA INDEX NAME)

REFERENCE COUNT: 59 THERE ARE

THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1016033 CAPLUS

DOCUMENT NUMBER: 142:23307

TITLE: Preparation of piperidinylcarbonyl(homo)piperazines as

histamine H3 antagonists for treatment of neurological

and psychiatric diseases

INVENTOR(S): Bruton, Gordon; Orlek, Barry Sidney; Rana, Kishore

Kalidas

PATENT ASSIGNEE(S): Glaxo Group Limited, UK SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	PATENT NO.					KIND DATE					ICAT							
WO															20040421			
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΑ,	NΙ,	
		NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
					•		TZ,	•				•						
	RW:		•				MW,											
		•		•	•	•	ТJ,	•	•		•	•	•		•			
							HU,		•				•					
				BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NΕ,	SN,	
		TD,																
														20040421				
	2523431				A1		2004	1125	1	CA 2	004-	2523	431		2	0040	421	
	1615				A1 20060118 EP 2004-728561 B1 20080723									2	0040	421		
EP																		
	R:		•		•		ES,	•				•						
							RO,											HR
BR	2004	0096	11		A		2006	0418		BR 2	004-	9611			2	0040	421	
CN	1809 2006	553			A		2006	0726	1	CN 2	004-	8001	7562		2	0040	421	
JP	2006	5289.	39		Τ		2006	1228	1	JP 2	006-	5296	93		2	0040	421	
	4021				T		2008											
	2005						2007											
	2007																	
	2005				Α		2006	0120										
RIORIT	Y APP	LN.	INFO	.:							003-							
											003-				A 2			
									WO 2004-EP4245						W 2	0040	421	
THER S	JURCE	(S):			CAS	CASREACT 142:23307; MARPAT 142:23307												

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$$(R^4)_m$$
 $(R^4)_m$ 
 $(R^2)_n$ 
 $(R^2)_n$ 

AB Title compds. [I; R1 = (substituted) Ar, Het, Cyc-X-Ar, Cyc-X-Het, Ar-X-Ar, Het-X-Ar, Het-X-Het, etc.; Ar = aryl; Het = heteroaryl; Cyc = cycloalkyl; X = bond, O, CO, SO2, OCH2; R2, R4 = alkyl; R3 = alkyl, alkenyl, alkynyl, (substituted) cycloalkyl, cycloalkenyl, alkylcycloalkyl; m, n = 0-2; p, q = 1, 2], were prepared Thus, 5-bromo-2-trifluoromethylpyridine, tris(dibenzylideneacetone)palladium(0), 2-dicyclohexylphosphine-2'-(N, N-dimethylamino)biphenyl, 1-isopropyl-4-(piperidine-4-carbonyl)piperazine (preparation given), and NaOCMe3 were refluxed 2 h in dioxane 1-isopropyl-4-[1-(6-trifluoromethylpyridin-3-yl)piperidine-4carbonyl]piperazine hydrochloride. The latter in a histamine H3 functional antagonist assay showed pKb >9.5. ΙT 799556-88-0P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (claimed compound; preparation of piperidinylcarbonyl(homo)piperazines as histamine H3 antagonists for treatment of neurol. and psychiatric diseases) 799556-88-0 CAPLUS RN

CN Benzoic acid, 4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1piperidinyl]-, ethyl ester (CA INDEX NAME)

799556-86-8P 799556-87-9P 799556-89-1P ΤТ 799556-90-4P 799556-91-5P 799556-92-6P 799556-93-7P 799556-94-8P 799556-95-9P 799556-96-0P 799556-97-1P 799556-98-2P 799556-99-3P 799557-00-9P 799557-01-0P 799557-02-1P 799557-03-2P 799557-04-3P 799557-05-4P 799557-06-5P 799557-07-6P 799557-08-7P 799557-09-8P 799557-10-1P 799557-11-2P 799557-12-3P 799557-13-4P 799557-14-5P 799557-15-6P 799557-16-7P 799557-17-8P 799557-18-9P 799557-19-0P 799557-20-3P 799557-21-4P 799557-22-5P 799557-23-6P 799557-24-7P 799557-25-8P 799557-26-9P 799557-27-0P 799557-28-1P 799557-29-2P 799557-30-5P 799557-31-6P 799557-32-7P 799557-33-8P 799557-34-9P 799557-35-0P 799557-36-1P 799557-37-2P 799557-38-3P 799557-39-4P 799557-40-7P 799557-41-8P 799557-42-9P 799557-43-0P 799557-44-1P 799557-45-2P 799557-46-3P 799557-50-9P 799557-51-0P 799557-52-1P 799557-53-2P 799557-56-5P 799557-57-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of piperidinylcarbonyl(homo)piperazines as histamine H3 antagonists for treatment of neurol. and psychiatric diseases)

RN 799556-86-8 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799556-87-9 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-4-(trifluoromethyl)-, methyl ester (CA INDEX NAME)

$$\begin{array}{c|c} O & & & & \\ \hline \\ MeO-C & & & & \\ \hline \\ F3C & & & \\ \end{array}$$

RN 799556-89-1 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

## 10/553,803

RN 799556-90-4 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]-2-fluoro- (CA INDEX NAME)

RN 799556-91-5 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]-3,5-difluoro- (CA INDEX NAME)

RN 799556-92-6 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]-2-(trifluoromethyl)- (CA INDEX NAME)

RN 799556-93-7 CAPLUS

CN 1-Naphthalenecarbonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799556-94-8 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799556-95-9 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[6-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799556-96-0 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799556-97-1 CAPLUS

CN Methanone, [1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl](4-cyclobutyl-1-piperazinyl)- (CA INDEX NAME)

RN 799556-98-2 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[5-[4-(methylsulfonyl)phenyl]-2-pyrimidinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799556-99-3 CAPLUS

CN Methanone, [4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]-4-morpholinyl- (CA INDEX NAME)

RN 799557-00-9 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-01-0 CAPLUS

CN Benzonitrile, 4-[4-[[(3R,5S)-4-cyclobutyl-3,5-dimethyl-1-piperazinyl]carbonyl]-1-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 799557-02-1 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[4-(1-ethylpropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-03-2 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-04-3 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-05-4 CAPLUS

CN Benzonitrile, 2,5-difluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-06-5 CAPLUS

CN Benzonitrile, 2-chloro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-07-6 CAPLUS

CN Benzonitrile, 2-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-08-7 CAPLUS

CN Benzonitrile, 3,5-difluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-09-8 CAPLUS

CN Benzonitrile, 3-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-10-1 CAPLUS

CN Benzonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-2-(trifluoromethyl)- (CA INDEX NAME)

RN 799557-11-2 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(trifluoromethyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-12-3 CAPLUS

CN 1-Naphthalenecarbonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-13-4 CAPLUS

CN Methanone, [1-(3,4-dichlorophenyl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799557-14-5 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(trifluoromethoxy)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-15-6 CAPLUS

CN Methanone, [1-[4-(difluoromethoxy)phenyl]-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799557-16-7 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(4-phenoxyphenyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799557-17-8 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(6-methoxy-3-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799557-18-9 CAPLUS

CN Benzonitrile, 2,3-difluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-19-0 CAPLUS

CN Benzonitrile, 3-chloro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-20-3 CAPLUS

CN Benzonitrile, 3-chloro-4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-21-4 CAPLUS

CN Benzonitrile, 2-chloro-4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-22-5 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-2-fluoro- (CA INDEX NAME)

RN 799557-23-6 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-2-(trifluoromethyl)- (CA INDEX NAME)

RN 799557-24-7 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-2,5-difluoro- (CA INDEX NAME)

RN 799557-25-8 CAPLUS

CN Benzonitrile, 4-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799557-26-9 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799557-27-0 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-28-1 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799557-29-2 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799557-30-5 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-31-6 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(6-quinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799557-32-7 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-33-8 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-34-9 CAPLUS

CN Benzonitrile, 4-[4-[(4-[(1S)-1-methylpropyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799557-35-0 CAPLUS

CN Methanone, [1-[4-(cyclopropylcarbonyl)phenyl]-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

RN 799557-36-1 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(2-methyl-6-quinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799557-37-2 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-38-3 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-39-4 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-40-7 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-41-8 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-42-9 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(2-methyl-5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-43-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-44-1 CAPLUS

CN Acetamide, N-[2-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799557-45-2 CAPLUS

CN Ethanone, 1-[4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799557-46-3 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-47-4 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-48-5 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(2-methyl-4-quinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799557-49-6 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(3-methyl-1,2,4-methyl-1,2,4-methyl-1,2,4-methyl-1,2,4-methylethyl)]

oxadiazol-5-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-50-9 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[2-(trifluoromethyl)-5-pyrimidinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-51-0 CAPLUS

CN Benzonitrile, 4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-52-1 CAPLUS

CN Benzonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-53-2 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-54-3 CAPLUS

CN Ethanone, 1-[4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799557-55-4 CAPLUS

CN 1-Propanone, 1-[4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799557-56-5 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-57-6 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

IT 799557-60-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of piperidinylcarbonyl(homo)piperazines as histamine H3 antagonists for treatment of neurol. and psychiatric diseases)

RN 799557-60-1 CAPLUS

CN Methanone, [1-(5-bromo-2-pyrimidinyl)-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

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799557-88-3P 799557-89-4P 799557-90-7P
ΙT
    799557-91-8P 799557-92-9P 799557-93-0P
     799557-94-1P 799557-95-2P 799557-96-3P
    799557-97-4P 799557-98-5P 799557-99-6P
    799558-00-2P 799558-01-3P 799558-02-4P
    799558-03-5P 799558-05-7P 799558-06-8P
    799558-07-9P 799558-08-0P 799558-09-1P
    799558-10-4P 799558-11-5P 799558-12-6P
    799558-13-7P 799558-14-8P 799558-15-9P
    799558-16-0P 799558-17-1P 799558-18-2P
    799558-19-3P 799558-20-6P 799558-21-7P
    799558-22-8P 799558-23-9P 799558-24-0P
    799558-25-1P 799558-26-2P 799558-27-3P
    799558-28-4P 799558-29-5P 799558-30-8P
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    799558-34-2P 799558-35-3P 799558-36-4P
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    799558-49-9P 799558-50-2P 799558-51-3P
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    799558-55-7P 799558-56-8P 799558-57-9P
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    799558-61-5P 799558-62-6P 799558-63-7P
    799558-64-8P 799558-65-9P 799558-66-0P
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    799558-70-6P 799558-71-7P 799558-72-8P
    799558-73-9P 799558-74-0P 799558-75-1P
    799558-76-2P 799558-77-3P 799558-78-4P
    799558-79-5P 799558-80-8P 799558-81-9P
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799558-88-6P 799558-89-7P 799558-90-0P
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799558-94-4P 799558-95-5P 799558-96-6P
799558-97-7P 799558-98-8P 799558-99-9P
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799559-03-8P 799559-04-9P 799559-05-0P
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799559-36-7P 799559-37-8P 799559-38-9P
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799559-42-5P 799559-43-6P 799559-44-7P
799559-45-8P 799559-46-9P 799559-47-0P
799559-48-1P 799559-49-2P 799559-50-5P
799559-51-6P 799559-52-7P 799559-53-8P
799559-54-9P 799559-55-0P 799559-56-1P
799559-62-9P 799559-63-0P 799559-64-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (preparation of piperidinylcarbonyl(homo)piperazines as histamine H3
   antagonists for treatment of neurol. and psychiatric diseases)
799557-88-3 CAPLUS
3-Pyridine carbonitrile, 6-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-
piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)
```

●x HCl

RN 799557-89-4 CAPLUS
CN Benzonitrile, 4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN CN

●x HCl

RN 799557-90-7 CAPLUS

CN 4-Pyridinecarbonitrile, 2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-91-8 CAPLUS

CN Benzonitrile, 2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-92-9 CAPLUS

CN Benzonitrile, 3-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799557-93-0 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[4-(trifluoromethyl)-2-

pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799557-94-1 CAPLUS

CN Methanone, [1-(2-benzothiazolyl)-4-piperidinyl](4-cyclobutyl-1-piperazinyl)- (CA INDEX NAME)

RN 799557-95-2 CAPLUS

CN 5-Pyrimidinecarbonitrile, 2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799557-96-3 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[5-(3-pyridinyl)-2-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799557-97-4 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[5-(4-morpholinyl)-2-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799557-98-5 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[2-(4-morpholinyl)-5-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799557-99-6 CAPLUS

CN Methanone, [1-[5-(2,3-dihydro-5-benzofurany1)-2-pyrimidiny1]-4-piperidiny1][4-(1-methylethyl)-1-piperaziny1]- (CA INDEX NAME)

RN 799558-00-2 CAPLUS

CN Benzonitrile, 4-[2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-5-pyrimidinyl]- (CA INDEX NAME)

RN 799558-01-3 CAPLUS

CN Piperazine, 1-[[1-[4-[1-(methoxyimino)ethyl]phenyl]-4piperidinyl]carbonyl]-4-(1-methylethyl)-, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 799558-02-4 CAPLUS

CN Piperazine, 1-[[1-[4-[1-(ethoxyimino)ethyl]phenyl]-4-piperidinyl]carbonyl]-4-(1-methylethyl)-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 799558-03-5 CAPLUS

CN Methanone, [3-chloro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]-4-morpholinyl-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-05-7 CAPLUS

CN Methanone, [4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]-4-morpholinyl-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-06-8 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-07-9 CAPLUS

CN Benzonitrile, 4-[4-[[(3R,5S)-4-cyclobutyl-3,5-dimethyl-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?), rel- (CA INDEX NAME)

Relative stereochemistry.

●x HCl

RN 799558-08-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl](1-phenyl-4-piperidinyl)-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-09-1 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[4-(1-ethylpropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-10-4 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-11-5 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-12-6 CAPLUS

CN Benzonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-13-7 CAPLUS

CN Benzonitrile, 2,5-difluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

# ●x HCl

RN 799558-14-8 CAPLUS

CN Benzonitrile, 2-chloro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

# •x HCl

RN 799558-15-9 CAPLUS

CN Benzonitrile, 2-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

# •x HCl

RN 799558-16-0 CAPLUS

CN Benzonitrile, 3,5-difluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

# ●x HCl

RN 799558-17-1 CAPLUS

CN Benzonitrile, 3-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

#### •x HCl

RN 799558-18-2 CAPLUS

CN Benzonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-2-(trifluoromethyl)-, hydrochloride (1:?) (CA INDEX NAME)

# •x HCl

RN 799558-19-3 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(trifluoromethyl)phenyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-20-6 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(1-naphthalenyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799558-21-7 CAPLUS

CN Benzonitrile, 4-fluoro-3-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-22-8 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(1-methylethyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-23-9 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[3-(1-methylethoxy)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-24-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[3-(trifluoromethoxy)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-25-1 CAPLUS

CN Methanone, [1-(4-fluorophenyl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799558-26-2 CAPLUS

CN Methanone, [1-(3-chloro-4-fluorophenyl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799558-27-3 CAPLUS

CN Methanone, [1-(3,5-dichlorophenyl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799558-28-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(4-methoxyphenyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799558-29-5 CAPLUS

CN Methanone, [1-(3-chloro-4-methoxyphenyl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799558-30-8 CAPLUS

CN Methanone, [1-[3-(difluoromethoxy)phenyl]-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & & & \\ & & & & & & \\ i-\text{Pr} & & & & & \\ \end{array}$$

RN 799558-31-9 CAPLUS

CN Benzonitrile, 4-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-32-0 CAPLUS

CN Benzonitrile, 4-[4-[[(3S)-4-ethyl-3-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-33-1 CAPLUS

CN Benzonitrile, 4-[4-[(3S)-4-cyclobutyl-3-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-34-2 CAPLUS

CN Benzonitrile, 4-[4-[[(3R)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-35-3 CAPLUS

CN Benzonitrile, 4-[4-[[(2R,5S)-2,5-dimethyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?), rel- (CA INDEX NAME)

Relative stereochemistry.

●x HCl

RN 799558-36-4 CAPLUS

CN Benzonitrile, 4-[4-[[(3S,5S)-4-ethyl-3,5-dimethyl-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-37-5 CAPLUS

CN Benzonitrile, 4-[4-[(2S)-2-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-38-6 CAPLUS

CN Benzonitrile, 4-[4-[[(2S)-4-cyclobutyl-2-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-39-7 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

•x HCl

RN 799558-40-0 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-41-1 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-42-2 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(2-methyl-6-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-43-3 CAPLUS

CN Benzonitrile, 3-fluoro-4-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-44-4 CAPLUS

CN Ethanone, 1-[4-[4-[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-45-5 CAPLUS

CN Methanone, [1-[4-(cyclopropylcarbonyl)phenyl]-4-piperidinyl][(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-46-6 CAPLUS

CN Methanone, [1-[4-(cyclobutylcarbonyl)phenyl]-4-piperidinyl][(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 799558-47-7 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

•x HCl

RN 799558-48-8 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-49-9 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-50-2 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-[2-(trifluoromethyl)-5-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-51-3 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-52-4 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(6-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799558-53-5 CAPLUS

CN Methanone, [1-(3,4-dihydro-4-methyl-2H-1,4-benzoxazin-7-yl)-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

RN 799558-54-6 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(2-methyl-4-thiazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-55-7 CAPLUS

CN Ethanone, 1-[2,3-dihydro-5-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-1H-indol-1-yl]- (CA INDEX NAME)

RN 799558-56-8 CAPLUS

CN 1H-Inden-1-one, 2,3-dihydro-5-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-57-9 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-58-0 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-59-1 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-60-4 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[(4-cyclobutyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-61-5 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[2-(trifluoromethyl)-4-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-62-6 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-63-7 CAPLUS

CN Benzonitrile, 4-[4-[(1R)-1-methylpropyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-64-8 CAPLUS

CN Benzonitrile, 4-[4-[(1S)-1-methylpropyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799558-65-9 CAPLUS

CN Methanone, [1-[4-(cyclopropylcarbonyl)phenyl]-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-66-0 CAPLUS

CN Benzonitrile, 2,5-difluoro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-67-1 CAPLUS

CN Benzonitrile, 2,6-difluoro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-68-2 CAPLUS

CN Benzonitrile, 3-chloro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-69-3 CAPLUS

CN Benzonitrile, 2-methoxy-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-70-6 CAPLUS

CN Ethanone, 2-fluoro-1-[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-

piperidinyl]phenyl]- (CA INDEX NAME)

RN 799558-71-7 CAPLUS

CN Ethanone, 1-[2,5-difluoro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799558-72-8 CAPLUS

CN 1-Propanone, 1-[4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799558-73-9 CAPLUS

CN Methanone, [1-[4-(cyclobutylcarbonyl)phenyl]-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]- (CA INDEX NAME)

RN 799558-74-0 CAPLUS

CN Piperazine, 1-[[1-(4-benzoylphenyl)-4-piperidinyl]carbonyl]-4-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 799558-75-1 CAPLUS

CN Ethanone, 1-[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799558-76-2 CAPLUS

CN Benzonitrile, 4-[4-[(4-propyl-1-piperazinyl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-77-3 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(2-methyl-4-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN 799558-78-4 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(2-methyl-6-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

# •x HCl

RN 799558-79-5 CAPLUS

CN Methanone, [1-(5-isoquinolinyl)-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN 799558-80-8 CAPLUS

CN 2-Pyrrolidinone, 1-[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799558-81-9 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(1H-pyrrol-1-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-82-0 CAPLUS
CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-83-1 CAPLUS
CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(2-methyl-4-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-84-2 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(3-methyl-5-isoxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-85-3 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-86-4 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799558-87-5 CAPLUS

CN 2-Pyrazinecarbonitrile, 3-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799558-88-6 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-89-7 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(6-methyl-3-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799558-90-0 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-(2-methyl-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799558-91-1 CAPLUS

CN Methanone, [6-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-3-pyridinyl]-1-pyrrolidinyl- (CA INDEX NAME)

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RN 799558-92-2 CAPLUS

CN 3-Pyridinecarboxamide, N,N-dimethyl-6-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} O & & O & \\ \hline \\ Me_2N-C & & \\ \hline \\ N & N & \\ \hline \end{array}$$

RN 799558-93-3 CAPLUS

CN Methanone, [1-[4-(5-isoxazolyl)phenyl]-4-piperidinyl][4-(1-methylethyl)-1-piperazinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN 799558-94-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-95-5 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[6-(trifluoromethyl)-3-pyridinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA

INDEX NAME)

•x HCl

RN 799558-96-6 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-97-7 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-98-8 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-99-9 CAPLUS

CN 2-Pyridinecarbonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-00-5 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[2-(trifluoromethyl)-4-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-01-6 CAPLUS

CN Benzonitrile, 2-bromo-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-02-7 CAPLUS

CN Benzonitrile, 3-bromo-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-03-8 CAPLUS

CN Benzonitrile, 4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 799559-04-9 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-3-fluoro- (CA INDEX NAME)

RN 799559-05-0 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-2,3-difluoro- (CA INDEX NAME)

RN 799559-06-1 CAPLUS

CN Benzonitrile, 3-bromo-4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-07-2 CAPLUS

CN Benzonitrile, 2-bromo-4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-08-3 CAPLUS

CN 1-Naphthalenecarbonitrile, 4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 799559-09-4 CAPLUS

CN Ethanone, 1-[4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)

## ●x HCl

RN 799559-10-7 CAPLUS

CN 1-Propanone, 1-[4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)

#### •x HCl

RN 799559-11-8 CAPLUS

CN Methanone, [1-[4-(cyclopropylcarbonyl)phenyl]-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799559-12-9 CAPLUS

CN Methanone, [1-[4-(cyclobutylcarbonyl)phenyl]-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799559-13-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(2-methyl-5-oxazolyl)phenyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN 799559-14-1 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-15-2 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(2-methyl-4-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-16-3 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(2-methyl-4-thiazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-17-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(5-isoxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

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RN 799559-18-5 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(3-methyl-5-isoxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

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RN 799559-19-6 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-20-9 CAPLUS

CN Methanone, [1-(3,4-dihydro-4-methyl-2H-1,4-benzoxazin-7-yl)-4-piperidinyl][hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]- (CA INDEX NAME)

RN 799559-21-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(6-quinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799559-22-1 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(7-isoquinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799559-23-2 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(1H-pyrrol-1-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-24-3 CAPLUS

CN 2-Pyrrolidinone, 1-[4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

RN 799559-25-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(5-isoquinolinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799559-26-5 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(5-methyl-1,3,4-oxadiazol-2-yl)phenyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799559-27-6 CAPLUS

CN Acetamide, N-[2-fluoro-4-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799559-28-7 CAPLUS

CN Ethanone, 1-[4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]phenyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799559-29-8 CAPLUS

CN Methanone, [4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]phenyl]cyclopropyl- (CA INDEX NAME)

RN 799559-30-1 CAPLUS

CN Methanone, [1-[4-(cyclobutylcarbonyl)phenyl]-4-piperidinyl](4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)- (CA INDEX NAME)

RN 799559-31-2 CAPLUS

CN Ethanone, 1-[4-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-2,5-difluorophenyl]- (CA INDEX NAME)

RN 799559-32-3 CAPLUS

CN 3-Pyridinecarbonitrile, 6-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799559-33-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-34-5 CAPLUS

CN 3-Pyridinecarboxamide, 6-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-N-methyl- (CA INDEX NAME)

RN 799559-35-6 CAPLUS

CN 3-Pyridinecarboxamide, 6-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-N,N-dimethyl- (CA INDEX NAME)

RN 799559-36-7 CAPLUS

CN Methanone, [6-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-3-pyridinyl]-1-pyrrolidinyl- (CA INDEX NAME)

$$i-Pr = N \qquad N = C \qquad N = N \qquad C = N$$

RN 799559-37-8 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[(4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

#### ●x HCl

RN 799559-38-9 CAPLUS

CN 2-Pyridinecarbonitrile, 5-[4-[[hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

## ●x HCl

RN 799559-39-0 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(6-methyl-3-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799559-40-3 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(2-methyl-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 799559-41-4 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-(2-methyl-4-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

RN 799559-42-5 CAPLUS

CN Methanone, [(3S)-3-methyl-4-(1-methylethyl)-1-piperazinyl][1-(2-methyl-6-quinolinyl)-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

RN 799559-43-6 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799559-44-7 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[4-(2-methyl-5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-45-8 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[4-(2-methyl-5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 799559-46-9 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-47-0 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-48-1 CAPLUS

CN Methanone, (4-cyclobutyl-1-piperazinyl)[1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799559-49-2 CAPLUS

CN Methanone, [4-(1-methylethyl)-1-piperazinyl][1-[2-(trifluoromethyl)-5-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799559-50-5 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[4-(2-methyl-5-oxazolyl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 799559-51-6 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1, 4-diazepin-1-yl)[1-[4-(5-methyl-1, 2, 4-oxadiazol-3-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-52-7 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[4-(3-methyl-1,2,4-oxadiazol-5-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-53-8 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[5-(trifluoromethyl)-2-pyrazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-54-9 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-55-0 CAPLUS

CN Methanone, (4-cyclobutylhexahydro-1H-1,4-diazepin-1-yl)[1-[2-(trifluoromethyl)-5-pyrimidinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 799559-56-1 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[2-

(trifluoromethyl)-5-pyrimidinyl]-4-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799559-62-9 CAPLUS

CN Benzenepropanenitrile,  $4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-<math>\beta$ -oxo-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799559-63-0 CAPLUS

CN Benzonitrile, 4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

•x HCl

RN 799559-64-1 CAPLUS

CN Methanone, [hexahydro-4-(1-methylethyl)-1H-1,4-diazepin-1-yl][1-[4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]-4-piperidinyl]- (CA INDEX NAME)

IT 799557-61-2P 799557-71-4P 799558-04-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of piperidinylcarbonyl(homo)piperazines as histamine H3 antagonists for treatment of neurol. and psychiatric diseases)

RN 799557-61-2 CAPLUS

CN 1H-1,4-Diazepine-1-carboxylic acid, 4-[[1-(4-cyanophenyl)-4-piperidinyl]carbonyl]hexahydro-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 799557-71-4 CAPLUS

CN Benzoic acid, 4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

●x HCl

RN 799558-04-6 CAPLUS

CN Benzoyl chloride, 3-chloro-4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:?) (CA INDEX NAME)

10/553,803

•x HCl

IT 807320-25-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of piperidinylcarbonyl(homo)piperazines as histamine H3 antagonists for treatment of neurol. and psychiatric diseases)

RN 807320-25-8 CAPLUS

CN Benzenepropanenitrile,  $4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-<math>\beta$ -oxo- (CA INDEX NAME)

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:633436 CAPLUS

DOCUMENT NUMBER: 141:174191

TITLE: Preparation of pyrazolopyrimidines as a small

conductance potassium channel (SK channel) blocking

agents

INVENTOR(S): Takamuro, Iwao; Sekine, Yasuo; Tsuboi, Yasunori; Nogi,

Kouji; Taniguchi, Hiroyuki

PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan

SOURCE: PCT Int. Appl., 306 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO. DATE					
	A2 20040805 A3 20040923	WO 2004-JP617	20040123				
W: AE, AG, A	L, AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,				
CN, CO, C	R, CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,				
GE, GH, G	M, HR, HU, ID, IL,	IN, IS, KE, KG, KP,	KR, KZ, LC, LK,				
		MG, MK, MN, MW, MX,					
JP 2005162726	A 20050623	JP 2004-14376	20040122				
EP 1585481	A2 20051019	EP 2004-704773	20040123				
R: AT, BE, C	H, DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,				
IE, SI, L	I, LV, FI, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, SK				
EP 1857459	A2 20071121	EP 2007-15684	20040123				
EP 1857459	A3 20071128						
R: AT, BE, B	G, CH, CY, CZ, DE,	DK, EE, ES, FI, FR,	GB, GR, HU, IE,				
IT, LI, L	U, MC, NL, PT, RO,	SE, SI, SK, TR, AL,	LT, LV, MK				
US 20060135525	A1 20060622	US 2005-542081	20050713				
US 7384952	B2 20080610						
PRIORITY APPLN. INFO.:		JP 2003-16770	A 20030124				
		JP 2003-205341	A 20030801				
		JP 2003-385399	A 20031114				
		EP 2004-704773	A3 20040123				
		WO 2004-JP617	W 20040123				
OTHER SOURCE (S).	маррат 1/1·17/1	0.1					

OTHER SOURCE(S): MARPAT 141:174191

GΙ

$$R^{1} = [0]_{q} Y - Z - N \qquad N = N$$

$$N = N$$

$$N = N$$

$$N = Q$$

$$R^{2}$$

AB The title compds. [I; R1 = substituted aryl, (un)substituted nitrogen-containing aliphatic heteromonocyclyl, substituted cycloalkyl, (un)substituted amino, or substituted heteroaryl; R2 = (un)substituted (hetero)aryl; Y = a single bond, alkylene or alkenylene; Z = CO, CH2, SO2, C:N(CN); Q = alkylene; q = 0-1] and their pharmaceutically acceptable salts, which have a small conductance potassium channel (SK channel) blocking activity, were prepared Thus, treating Et 4-{N-(cyclopropylcarbonyl)-N-[2-(dimethylamino)ethyl]amino}benzoate (preparation given) with 2N NaOH solution followed by treatment with 2N HCl, and

the reaction of the resulting acid with 1-(3-ethoxybenzyl)-4-(piperazin-1-yl)-1H-pyrazol[3,4-d]pyrimidine dihydrochloride afforded 84% II which showed an excellent apamin-binding inhibitory activity (IC50 of 0.05  $\mu M)$ . The pharmaceutical composition comprising the compound I is claimed. 733771-87-4P 733773-94-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolopyrimidines as a small conductance potassium channel (SK channel) blocking agents)

RN 733771-87-4 CAPLUS

CN Methanone, [4-[1-[(3-ethoxyphenyl)methyl]-1H-pyrazolo[3,4-d]pyrimidin-4-yl]-1-piperazinyl][1-(2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

ΙT

RN 733773-94-9 CAPLUS

CN Methanone, (1-cyclopentyl-4-piperidinyl)[4-[1-[(3-ethoxyphenyl)methyl]-1H-pyrazolo[3,4-d]pyrimidin-4-yl]-1-piperazinyl]- (CA INDEX NAME)

L16 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:485162 CAPLUS

DOCUMENT NUMBER: 141:38534

TITLE: Preparation of aromatic sulfone hydroxamic acid

metalloprotease inhibitors

INVENTOR(S): Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.;

Boehm, Terri L.; Carroll, Jeffrey N.; Decrescenzo, Gary A.; Fobian, Yvette M.; Freskos, John N.; Getman, Daniel P.; McDonald, Joseph J.; Li, Madeleine H.; Hockerman, Susan L.; Howard, Susan C.; Kolodziej, Steve A.: Mischke, Deborah A.: Rico, Joseph G.:

Steve A.; Mischke, Deborah A.; Rico, Joseph G.; Stehle, Nathan W.; Tollefson, Michael B.; Vernier,

William F.; Villamil, Clara I. PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: U.S., 403 pp., Cont.-in-part of U.S. Ser. No. 311,837.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

	PATENT NO.															ATE					
US	6750228			В1		2004	0615	US 2000-570731 2000													
					20010816 US 1998-191129																
					20011108 US 1999-2																
	2372934			A1	A1 20001123 CA 2000-2372934						2	20000515									
WO	2000069821							WO 2000-US6719													
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								MW,													
								TR,										ZW			
	RW:							SL,													
								ΙE,							BF,	ВJ,	CF,				
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG								
EP	EP 1183239			A1 20020306 EP 2000-930088 , DE, DK, ES, FR, GB, GR, IT, LI, LU,					88	20000515											
	R:							FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,				
				LT,																	
HU	HU 2002001680		A2		2002	0928		HU 2	002-	1680			2	0000	515						
HU	J 2002001680		А3		2002	1228															
BR	. 2000010562		А		2003	0610			000-												
JP	JP 2003520196		Τ		2003	0702			000-												
	AU 766792		В2		2003	1023	1		000-												
	IZ 515217																				
	US 20020177588										0010	917									
	6750				B2 20040615																
	A 2001009006																				
	2001005543																				
	2001PA11569																				
				1 20030417					20011121												
	JS 6683093					0127						_									
	US 20040209914																				
					A1		2004	1125		US 2003-747796 US 1997-66007P											
ORIT:	Y APP	LN.	INFO	.:																	
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									1	US 1	998-	1010	80P		P 1	9980	918				

US	1999-256948	В2	19990224
US	1999-311837	A2	19990514
US	1998-95501P	P	19980806
US	1998-186410	В2	19981105
US	1998-191129	В2	19981113
US	2000-570731	Α	20000512
WO	2000-US6719	W	20000515
US	2001-989943	АЗ	20011121

OTHER SOURCE(S):

MARPAT 141:38534

AΒ A treatment process is disclosed that comprises administering an effective amount of an aromatic sulfone hydroxamic acid I [W = H, cation, certain acyl orthioacyl groups; m, n, p = 0-2; (m+n+p) = 1 to 4; Z = (un) substituted NH; X, Y = (un)substituted CH2; A = bond, O, S, (un)substituted NH, COO, OCO, CH:CH, C.tplbond.C, N:N, NHNH, NHCOO, (un)substituted CONH, NHCO, etc.; R = alkylene, arylene, heteroarylene, etc., with provisos; E = bond, CONH, NHCO, CO, SO2, NHSO2, SO2NH, S, etc.; Y2 = absent, H, alkyl, alkoxy, aryl, aryloxy, heteroaryl, etc.] to a host having a condition associated with pathol. matrix metalloprotease (MMP) activity. I exhibit excellent inhibitory activity of one or more MMP enzymes, such as MMP-2, MMP-9 and MMP-13, while exhibiting substantially less inhibition of (at least) MMP-1 (biol. data given). Also disclosed are metalloprotease inhibitor compds. having such selective activities, processes for manufacture of such compds., and pharmaceutical compns. using such inhibitors. The compds. are potentially useful against a wide variety of conditions, notably as antiosteoarthritic, antiangiogenesis, and antitumor agents. Over 900 example compds. are listed, most with supporting phys. data, and many with synthetic details. E.g., a multi-step synthesis of the compound II.2HCl was given.

Ι

ΙI

IT 308821-69-4P 308821-71-8P 308821-72-9P 308821-73-0P 308821-74-1P 308821-75-2P

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308821-76-3P 308821-77-4P 308821-79-6P
     308821-81-0P 308821-82-1P 308821-83-2P
     308821-85-4P 308821-87-6P 308821-89-8P
     308821-91-2P 308821-93-4P 308821-95-6P
     308821-96-7P 308821-97-8P 308821-98-9P
     308821-99-0P 308822-00-6P 308822-01-7P
     308822-02-8P 308822-04-0P 308822-05-1P
     308822-07-3P 308822-08-4P 308822-09-5P
     308822-11-9P 308822-13-1P 308822-14-2P
     308822-16-4P 308822-17-5P 308822-23-3P
     308822-24-4P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (drug candidate; preparation of aromatic sulfone hydroxamic acids as
        metalloprotease inhibitors)
RN
     308821-69-4 CAPLUS
CN
     2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-phenylethyl)-
     1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-,
     2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)
     CM
     CRN
         308821-68-3
     CMF
         C30 H40 N4 O6 S
                                         CH2-CH2-Ph
HO-NH-C
       0
     CM
     CRN 76-05-1
     CMF
         C2 H F3 O2
F-C-CO2H
  F
RN
     308821-71-8 CAPLUS
CN
     2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(1-phenylethyl)-1]]]]
     1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-,
     2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)
     CM
        1
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CRN 308821-70-7 CMF C30 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-72-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-chlorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-73-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-methoxyphenyl)-3-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-74-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-(5-chloro-2-methylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-75-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-methoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-(CA INDEX NAME)

RN 308821-76-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-acetyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308821-77-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-79-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-hydroxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-78-5 CMF C24 H36 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-81-0 CAPLUS

CN 1-Piperazineacetic acid, 4-[[1-[4-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]phenyl]-4-piperidinyl]carbonyl]-, ethyl ester, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 308821-80-9 CMF C26 H38 N4 O8 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-82-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-83-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-furanylcarbonyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-85-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-

piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-, 2,2,2-trifluoroacetate
(1:1) (CA INDEX NAME)

CM 1

CRN 308821-84-3 CMF C27 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-87-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-86-5 CMF C25 H38 N4 O6 S

CM 2

CRN 76-05-1

10/553,803

CMF C2 H F3 O2

RN 308821-89-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-88-7 CMF C28 H41 N5 O7 S

PAGE 1-A

PAGE 2-A

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-91-2 CAPLUS

CM 1

CRN 308821-90-1 CMF C27 H43 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-93-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-92-3 CMF C25 H38 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-95-6 CAPLUS

CM 1

CRN 308821-94-5 CMF C26 H41 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-96-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-(2-ethoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-97-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-98-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-99-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-00-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-acetylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-01-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-nitrophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-02-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(3,5-dichloro-4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-

## (CA INDEX NAME)

RN 308822-04-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-nitro-4-(trifluoromethyl)phenyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-05-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[3-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-07-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-difluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

## 10/553,803

RN 308822-08-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-09-5 CAPLUS

RN 308822-11-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-10-8 CMF C25 H36 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2 10/553,803

RN 308822-13-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-pyrazinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-12-0 CMF C26 H34 N6 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-14-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308822-16-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[4-(4-morpholinyl)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-15-3 CMF C28 H43 N5 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-17-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(3-chlorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-23-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(4-[4-(trifluoromethyl)-2-pyrimidinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-24-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:30441 CAPLUS

DOCUMENT NUMBER: 140:283315

TITLE: Understanding Protein-Ligand Interactions: The Price

of Protein Flexibility

AUTHOR(S): Rauh, Daniel; Klebe, Gerhard; Stubbs, Milton T. CORPORATE SOURCE: Institut fur Pharmazeutische Chemie der Philipps,

Universitat Marburg, Marburg, D35032, Germany

SOURCE: Journal of Molecular Biology (2004), 335(5), 1325-1341

CODEN: JMOBAK; ISSN: 0022-2836

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

AB In order to design selective, high-affinity ligands to a target protein, it is advantageous to understand the structural determinants for protein-ligand complex formation at the atomic level. In a model system, we have successively mapped the factor Xa binding site onto trypsin, showing that certain mutations influence both protein structure and inhibitor specificity. Our previous studies have shown that introduction of the 172SSFI175 sequence of factor Xa into rat or bovine trypsin results in the destabilization of the intermediate helix with burial of Phe174 (the down conformation). Surface exposure of the latter residue (the up conformation) is critical for the correct formation of the aromatic box found

in

factor Xa-ligand complexes. In the present study, we investigate the influence of aromatic residues in position 174. Replacement with the bulky tryptophan (SSWI) shows reduced affinity for benzamidine-based inhibitors (1) and (4), whereas removal of the side-chain (alanine, SSAI) or exchange with a hydrophilic residue (arginine, SSRI) leads to a significant loss in affinity for all inhibitors studied. The variants could be crystallized in the presence of different inhibitors in multiple crystal forms. Structural characterization of the variants revealed three different conformations of the intermediate helix and 175 loop in SSAI (down, up and super-up), as well as a complete disorder of this region in one crystal form of SSRI, suggesting that the compromised affinity of these variants is related to conformational flexibility. The influence of Glu217, peripheral to the ligand-binding site in factor Xa, was investigated. Introduction of Glu217 into trypsin variants containing the SSFI sequence exhibited enhanced affinity for the factor Xa ligands (2) and (3). The crystal structures of these variants also exhibited the down and super-up conformations, the latter of which could be converted to up upon soaking and binding of inhibitor (2). The improved affinity of the Glu217-containing variants appears to be due to a shift towards the up conformation. Thus, the reduction in affinity caused by conformational variability of the protein target can be partially or wholly offset by compensatory binding to the up conformation. The insights provided by these studies will be helpful in improving our understanding of ligand binding for the drug design process. 179050-05-6

IT 1

RL: BSU (Biological study, unclassified); BIOL (Biological study) (structural and kinetic anal. of trypsin variants containing modified FXa 175 loop reveals interplay between protein flexibility and compensatory binding of ligand)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT:

31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:991510 CAPLUS

DOCUMENT NUMBER: 140:42193

TITLE: Preparation of bicyclic pyrimidine derivatives as

antiinflammatory agents for treatment of allergic

diseases

INVENTOR(S): Arai, Hitoshi; Matsumura, Tsutomu; Ishida, Hiroshi;

Yamaura, Yosuke; Aratake, Seiji; Ohshima, Etsuo; Yanagawa, Koji; Miyama, Motoki; Suzuki, Koji; Kawabe, Ari; Nakanishi, Satoshi; Kobayashi, Katsuya; Sato, Takashi; Miki, Ichiro; Ueno, Kimihisa; Fujii, Shinya;

Iwase, Miho

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 467 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P	PATENT NO.					D	DATE				ICAT		NO. DATE					
— W	WO 2003104230			A1		2003	1218							2	0030	606		
	W:	AE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KR,	KΖ,	LC,	LK,	LR,	LS,	
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NI,	NO,	NZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW							
	RV	V: GH,	GM,	ΚE,	LS,	MW,	MΖ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FI,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,	
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
А	AU 2003242252			A1		2003	031222 AU 2003-242252						20030606					
E	EP 1552842			A1 20050713					EP 2003-733302					20030606				
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK		
U	US 20070037834			A1		2007	0215	US 2005-516750					20050331					
PRIORI	PRIORITY APPLN. INFO.:								JP 2002-166504					A 20020607				
										WO 2003-JP7200				Ţ	W 20030606			
OTHER SOURCE(S):					MAR	PAT	140:	4219	3									

OTHER SOURCE(S): MARPAT 140:42193

GΙ

$$R^1$$
 $N \longrightarrow N$ 
 $N \longrightarrow N$ 

AB The title compds. I [wherein m and n = independently 1-3; R1 = (un) substituted amino; R2 = -B-(CX2)p-R7, (un) substituted piperidinyl,

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piperazinyl, or amino; B = O CH=CH, C.tplbond.C, or phenylene; p = 1-4; X
     = H, halo, or (un)substituted alkyl; R7 = (un)substituted amino; A = a
     single bond, CO, SO2, OCO, OCS, SCO, SCS, (un)substituted NHCO, NHCS, or
     amino; R3 = H, (un)substituted alkyl, cycloalkyl, alkenyl, alkynyl,
     aralkyl, aryl, heteroaryl, heterocyclyl, heteroarylalkyl, or
     heterocyclylalkyl, etc.] or quaternary ammonium salts, or pharmaceutically
     acceptable salts thereof are prepared I have an antiinflammatory effect and
     an effect of controlling the function(s) of TARC and/or MDC and,
     therefore, are usable in treating and/or preventing various diseases in
     which T cells participate, for example, allergic diseases, autoimmune
     diseases, rejection at transplantation, etc. (no data). Formulations
     containing I as an active ingredient were also described.
ΙT
     635688-23-2P 635688-26-5P 635738-41-9P
     635738-42-0P 635738-43-1P 635738-44-2P
     635738-45-3P 635738-46-4P 635738-47-5P
     635738-48-6P 635738-49-7P 635738-50-0P
     635738-51-1P 635738-53-3P 635738-54-4P
     635738-55-5P 635738-56-6P 635738-57-7P
     635738-58-8P 635738-59-9P 635738-60-2P
     635738-61-3P 635738-62-4P 635738-63-5P
     635738-65-7P 635738-66-8P 635738-67-9P
     635738-68-0P 635738-69-1P 635738-70-4P
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     635738-74-8P 635738-75-9P 635738-77-1P
     635738-78-2P 635738-79-3P 635738-81-7P
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     635738-92-0P 635738-93-1P 635738-94-2P
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     635739-11-6P 635739-12-7P 635739-14-9P
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     635739-18-3P 635739-19-4P 635739-20-7P
     635739-21-8P 635739-22-9P 635739-23-0P
     635739-24-1P 635744-18-2P 635744-19-3P
     635744-20-6P 635744-21-7P 635749-58-5P
     635749-59-6P 635749-60-9P 635749-61-0P
     635749-62-1P 635749-63-2P 635749-64-3P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (drug candidate; preparation of bicyclic pyrimidine derivs. as
        antiinflammatory agents for treatment of allergic diseases)
RN
     635688-23-2 CAPLUS
CN
     Pyrido[4,3-d]pyrimidin-4-amine, 6-(cyclopropylcarbonyl)-N-[(2,4-
     dichloropheny1) methy1]-5,6,7,8-tetrahydro-2-[4-[[4-(2-hydroxyethy1)-1-
     piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)
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RN 635688-26-5 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2,4-dichlorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-(2-hydroxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-41-9 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-(9CI) (CA INDEX NAME)

RN 635738-42-0 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-2-[4-[(4-ethyl-1-piperazinyl)carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-(9CI) (CA INDEX NAME)

RN 635738-43-1 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-44-2 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[[4-(2-propenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-45-3 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-(9CI) (CA INDEX NAME)

RN 635738-46-4 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-47-5 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-48-6 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-2-[4-[[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-(9CI) (CA INDEX NAME)

RN 635738-49-7 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydro-2-[4-[[4-[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-50-0 CAPLUS

CN 1-Piperazinepropanenitrile, 4-[[1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-6-(cyclopropylcarbonyl)-5,6,7,8-tetrahydropyrido[4,3-d]pyrimidin-2-yl]-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 635738-51-1 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-6-(cyclopropylcarbonyl)-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-(9CI) (CA INDEX NAME)

RN 635738-53-3 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-54-4 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-2-[4-[(4-ethyl-1-piperazinyl)carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]- (9CI) (CA INDEX NAME)

RN 635738-55-5 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-56-6 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-(2-propenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-57-7 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]- (9CI) (CA INDEX NAME)

RN 635738-58-8 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-59-9 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

RN 635738-60-2 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-2-[4-[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]- (9CI) (CA INDEX NAME)

RN 635738-61-3 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]-2-[4-[[4-[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-(9CI) (CA INDEX NAME)

RN 635738-62-4 CAPLUS

CN 1-Piperazinepropanenitrile, 4-[[1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]pyrido[4,3-d]pyrimidin-2-yl]-4-piperidinyl]carbonyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 635738-63-5 CAPLUS

CN Pyrido[4,3-d]pyrimidin-4-amine, N-[(2-chloro-4-fluorophenyl)methyl]-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-5,6,7,8-tetrahydro-6-[(1-hydroxycyclopropyl)carbonyl]- (9CI) (CA INDEX NAME)

RN 635738-65-7 CAPLUS

CN 1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

635738-66-8 CAPLUS
1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-ethyl-CN 1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

RN

635738-67-9 CAPLUS 1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-CN [4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3d]pyrimidin-6(5H)-y1]-2-hydroxy- (CA INDEX NAME)

635738-68-0 CAPLUS
1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-CN [4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

635738-69-1 CAPLUS RN

1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-CN cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

635738-70-4 CAPLUS 1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-CN [4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl]-1-piperidinyl]pyrido[4,3-methoxyethyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyl]-1-piperazinyl[-1-piperazinyld]pyrimidin-6(5H)-y1]-2-hydroxy- (CA INDEX NAME)

RN 635738-71-5 CAPLUS

1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-CN [4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3d]pyrimidin-6(5H)-y1]-2-hydroxy- (CA INDEX NAME)

635738-72-6 CAPLUS RN

1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-CN ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

RN

635738-73-7 CAPLUS 1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-CN [4-[[4-[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

RN 635738-74-8 CAPLUS

CN 1-Piperazinepropanenitrile, 4-[[1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-5,6,7,8-tetrahydro-6-(2-hydroxy-1-oxopropyl)pyrido[4,3-d]pyrimidin-2-yl]-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 635738-75-9 CAPLUS

CN 1-Propanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy- (CA INDEX NAME)

RN 635738-77-1 CAPLUS

CN 1-Butanone, 1-[4-[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-78-2 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-ethyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

635738-79-3 CAPLUS 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-CN  $\hbox{\tt [[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido\,[4,3-4]}$ d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-81-7 CAPLUS

 $1-Butanone, \ 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7, 8-dihydro-2-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]amino]-1-[4-klorophenyl]methyl]methyl]methyl]methyl]methyl]methyl]methyl]methyl]methyl]methyl]methyl]methylphethylp$ CN [[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-82-8 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-83-9 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-84-0 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-85-1 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

 $635738-86-2 \quad \text{CAPLUS} \\ 1-\text{Butanone, } 1-[4-[[(2-\text{chloro}-4-\text{fluorophenyl})\,\text{methyl}]\,\text{amino}]-7,8-\text{dihydro}-2-[4-\text{chloro}-4-\text{fluorophenyl}]} \\ -2-[4-\text{chloro}-4-\text{fluorophenyl}] \\ -2-[4-\text{chlorophenyl}] \\ -2-[4-\text{chl$ CN [[4-[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1piperidinyl]pyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

635738-87-3 CAPLUS RN

1-Piperazinepropanenitrile, 4-[[1-[4-[[(2-chloro-4-CN fluorophenyl)methyl]amino]-5,6,7,8-tetrahydro-6-(2-hydroxy-3-methyl-1oxobutyl)pyrido[4,3-d]pyrimidin-2-yl]-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 635738-88-4 CAPLUS

CN 1-Butanone, 1-[4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8-dihydropyrido[4,3-d]pyrimidin-6(5H)-yl]-2-hydroxy-3-methyl- (CA INDEX NAME)

RN 635738-90-8 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-, methyl ester (CA INDEX NAME)

RN 635738-91-9 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-ethyl-1piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-, methyl ester (CA INDEX NAME)

RN 635738-92-0 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, methyl ester (CA INDEX NAME)

RN 635738-93-1 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, methyl ester (CA INDEX NAME)

RN 635738-94-2 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-cyclopentyl-1piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-, methyl ester (CA INDEX NAME)

RN 635738-95-3 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, methyl ester (CA INDEX NAME)

RN 635738-96-4 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, methyl ester (CA INDEX NAME)

RN 635738-97-5 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-, methyl ester (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & &$$

RN 635738-98-6 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-,
methyl ester (CA INDEX NAME)

RN 635738-99-7 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-cyanoethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-, methyl ester (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 635739-00-3 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(hexahydro-4-methyl-1H1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8-dihydro-, methyl ester (CA
INDEX NAME)

RN 635739-02-5 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-, ethyl ester (CA INDEX NAME)

RN 635739-03-6 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-ethyl-1piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-, ethyl ester (CA INDEX NAME)

RN 635739-04-7 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, ethyl ester (CA INDEX NAME)

RN 635739-05-8 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, ethyl ester (CA INDEX NAME)

RN 635739-06-9 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-, ethyl ester (CA INDEX NAME)

RN 635739-07-0 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, ethyl ester (CA INDEX NAME)

RN 635739-08-1 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-, ethyl ester (CA INDEX NAME)

RN 635739-09-2 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-ethoxyethyl)-1piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-, ethyl ester (CA INDEX NAME)

RN 635739-10-5 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-,
ethyl ester (CA INDEX NAME)

RN 635739-11-6 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-cyanoethyl)-1piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-, ethyl ester (CA INDEX NAME)

RN 635739-12-7 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxylic acid, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8-dihydro-, ethyl ester (CA INDEX NAME)

RN 635739-14-9 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 635739-15-0 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-2-[4-[(4-ethyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro- (CA INDEX NAME)

RN 635739-16-1 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 635739-17-2 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 635739-18-3 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-N-ethyl-7,8-dihydro-(CA INDEX NAME)

RN 635739-19-4 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 635739-20-7 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 635739-21-8 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-N-ethyl-7,8-dihydro- (CA INDEX NAME)

RN 635739-22-9 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-7,8-dihydro-2-[4-[[4[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl](CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 635739-23-0 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-cyanoethyl)-1piperazinyl]carbonyl]-1-piperidinyl]-N-ethyl-7,8-dihydro- (CA INDEX NAME)

RN 635739-24-1 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-N-ethyl-2-[4-[(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8-dihydro- (CA INDEX NAME)

RN 635744-18-2 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]-N-propyl- (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ &$$

RN 635744-19-3 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide, 4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-ethyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-N-propyl- (CA INDEX NAME)

RN 635744-20-6 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-N-propyl- (CA INDEX NAME)

RN 635744-21-7 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]-N-propyl- (CA INDEX NAME)

RN 635749-58-5 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]-7,8-dihydro-N-propyl- (CA INDEX NAME)

RN 635749-59-6 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-N-propyl- (CA INDEX NAME)

RN 635749-60-9 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-2-[4-[[4-(3-methoxypropyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-N-propyl- (CA INDEX NAME)

RN 635749-61-0 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-ethoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-N-propyl- (CA INDEX NAME)

RN 635749-62-1 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-7,8-dihydro-N-propyl-2-[4-[[4[(tetrahydro-2-furanyl)methyl]-1-piperazinyl]carbonyl]-1-piperidinyl](CA INDEX NAME)

RN 635749-63-2 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[[4-(2-cyanoethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-7,8-dihydro-N-propyl- (CA INDEX NAME)

RN 635749-64-3 CAPLUS

CN Pyrido[4,3-d]pyrimidine-6(5H)-carboxamide,
4-[[(2-chloro-4-fluorophenyl)methyl]amino]-2-[4-[(hexahydro-4-methyl-1H1,4-diazepin-1-yl)carbonyl]-1-piperidinyl]-7,8-dihydro-N-propyl- (CA
INDEX NAME)

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2003:591178 CAPLUS

DOCUMENT NUMBER: 139:149653

TITLE: Preparation of quinoxaline derivatives as

poly(ADP-ribose) polymerase (PARP) inhibitors for

treatment of rheumatoid arthritis

INVENTOR(S): Takayama, Kazuhisa; Masuda, Naoyuki; Hondo, Takeshi;

Hirabayashi, Ryoji; Seki, Norio; Koga, Yuji; Naito, Ryo; Okamoto, Yoshinori; Kaizawa, Hiroyuki; Okuda,

Takao; Okada, Youhei; Takeuchi, Makoto

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

		PATENT NO.				D	DATE		APPLICATION NO.									
		WO 2003062234			A1	_	20030731		WO 2003-JP545				20030122					
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KR,	KΖ,	LC,	LK,	LR,	LS,	
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,	
		PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	
		UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW								
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG		
	PRIORITY APPLN. INFO.:					JP 2002-14121									A 20020123			
OTHER SOURCE(S):						MARPAT 139:149653												
	O.T.																	

$$H_2N$$
  $O$   $H_2N$   $O$   $N$   $OBu-t$   $R^2$   $N$   $R^3$   $I$ 

AB The title quinoxaline derivs. with general formula of I [wherein wherein R1 = H, alkoxy, halo, or (un)substituted alkyl; R2 = halo, (un)substituted OH, SH, or amino, etc.; R3 = H, OH, halo, (un)substituted cycloalkyl, cycloalkenyl, heterocyclyl, or alkyl, etc.; with exclusions] and pharmaceutically acceptable salts thereof are prepared as poly(ADP-ribose) polymerase (PARP) inhibitors for the treatment of rheumatoid arthritis. For example, the quinoxalinecarboxamide II was prepared in a four-step synthesis starting from N-(tert-butoxycarbonyl)isonipecotic acid comprising ring formation reaction. Some of compds. I showed IC50 of 3.8-72 nM against human PARP.

GΙ

IT 569666-26-8P 569666-27-9P 569666-35-9P
569667-09-0P 569667-21-6P 569667-71-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (drug candidate; preparation of quinoxaline derivs. as PARP inhibitors for
 treatment of rheumatoid arthritis)
RN 569666-26-8 CAPLUS
CN 5-Quinoxalinecarboxamide, 3-[4-[[4-(4-chlorophenyl)-1 piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 569666-27-9 CAPLUS
CN 5-Quinoxalinecarboxamide, 3-[4-[(4-phenyl-1-piperazinyl)carbonyl]-1 piperidinyl]- (CA INDEX NAME)

RN 569666-35-9 CAPLUS
CN 5-Quinoxalinecarboxamide, 3-[4-[[4-[(1R,2R)-2-hydroxycyclohexyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-, hydrochloride (1:1), rel- (CA INDEX NAME)

Relative stereochemistry.

$$H_2N$$
 O OH  $R$   $R$ 

● HCl

RN 569667-09-0 CAPLUS

CN 5-Quinoxalinecarboxamide, 3-[6-[4-[[4-[(1R,2R)-2-hydroxycyclohexyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-3-pyridinyl]-, hydrochloride (1:2), rel- (CA INDEX NAME)

Relative stereochemistry.

$$H_2N$$
  $O$   $N$   $N$   $R$   $R$ 

●2 HC1

RN 569667-21-6 CAPLUS

CN 5-Quinoxalinecarboxamide, 3-[6-[4-[[4-(2-fluorobenzoyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-3-pyridinyl]- (CA INDEX NAME)

RN 569667-71-6 CAPLUS

CN 5-Quinoxalinecarboxamide, 3-[5-chloro-6-[4-[[4-(2-fluorobenzoy1)-1-piperaziny1]carbony1]-1-piperidiny1]-3-pyridiny1]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:591177 CAPLUS

DOCUMENT NUMBER: 139:149652

TITLE: Preparation of 2-acylaminothiazole derivatives or

salts thereof as c-Mpl receptor ligands

INVENTOR(S): Sugasawa, Keizo; Watanuki, Susumu; Koga, Yuji; Nagata,

Hiroshi; Obitsu, Kazuyoshi; Wakayama, Ryutaro;

Hirayama, Fukushi; Suzuki, Ken-ichi

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PAI	ENT :	NO.			KIND DATE						ICAT		DATE					
	WO	2003062233				A1 20030731								20030115					
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KR,	KΖ,	LC,	LK,	LR,	LS,	
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	OM,	PH,	PL,	
			PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	
			UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW								
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,	
			KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
			FΙ,	FR,	GB,	GR,	HU,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	
			ΒJ,	CF,	CG,	CI,		GΑ,	•			•	•	•					
	CA	CA 2472711				A1 20030731										0030	115		
	ΕP	1466912							EP 2003-700571										
		R:		•				ES,			•				•			PT,	
				SI,				RO,											
	JΡ	4120	586			В2		2008	0716		JP 2	003-	5621	20030115					
	IN 2004KN00942							2006	0217		IN 2	004 - 1	KN94.	20040705					
		2005						2005	-								0040		
	JP 2008111001							2008	0515		JP 2	008-	2395	0		2	0080	204	
PRIOR	RIORITY APPLN. INFO.:											002-					0020		
												002-	1044		A 20020118				
												003-		_	A3 20030115				
											WO 2	003-	JP27	0	Ī	₩ 2	0030	115	

OTHER SOURCE(S): MARPAT 139:149652

AB 2-Acylaminothiazole derivs. or pharmaceutically acceptable salts thereof [I; Arl = each (un)substituted aryl, monocyclic aromatic heterocyclyl, or bicyclic condensed heterocyclyl; R1 = each (un)substituted aryl or

monocyclic aromatic heterocyclyl; R2 = Q, Q1, R24R25N; wherein n, m = aninteger of 1-3; when n or m is an integer of  $\geq 2$ , CR20R21 and CR22R23 may represent a different group; X = O, S, NR26, C(R27)R28; E, G, J, L = N, CR29; R20-R23, R26-R29 = H, OH, lower alkoxy, each (un) substituted lower alkyl, cycloalkyl, aryl, arylalkyl, aromatic heterocyclyl, aromatic heterocyclylalkyl, nonarom. heterocyclyl, lower alkenyl, lower alkylidene, NH2, or CONH2, CO2H, lower alkoxycarbonyl, lower alkenyloxycarbonyl, aryl-lower alkoxycarbonyl, aromatic heterocyclyl-lower alkoxycarbonyl, lower alkylcarbonylamino, oxo; R24, R25 = H, each (un)substituted lower alkyl, cycloalkyl, or nonarom. heterocyclyl] are prepared These compds. have an excellent effect of proliferating human c-Mpl-Ba/F3 cells and an activity of increasing platelets (thrombocytosis) based on the effect of promoting the formation of megakaryocytic colonies and are useful in treating thrombopenia. Thus, 2.1 mL Et isonipecotinate was added to a solution of 750 mg 5,6-dichloro-N-[4-(4-chlorothiophen-2-yl)-5-(4-cyclohexylpiperazin-1yl)thiazol-2-yl]nicotinamide in 10 mL THF, heated to 50°, and stirred for 5 h to give, after workup and silica gel chromatog., 881 mg 1-[3-chloro-5-[[4-(4-chlorothiophen-2-yl)-5-(4-cyclohexylpiperazin-1yl)thiazol-2-yl]carbamoyl]-2-pyridyl]piperidine-4-carboxylic acid Et ester which (30 mg) was dissolved in 1 mL MeOH, treated with 0.12 mL 1 M aqueous NaOH solution at room temperature, stirred for 24 h, distilled under reduced pressure,

dissolved in EtOAc, treated with 0.2 mL 1 M aqueous HCl solution, stirred, and distilled under reduced pressure, followed by washing the residue with Et2O to give 20 mg 1-[3-chloro-5-[[4-(4-chlorothiophen-2-yl)-5-(4-cyclohexylpiperazin-1-yl)thiazol-2-yl]carbamoyl]-2-pyridyl]piperidine-4-carboxylic acid hydrochloride (II). II and recombinant human thrombopoietin (rhTPO) at 2.4 ad 0.012 nM, resp., showed 30% of the maximum cell proliferating effect of each compound tested on human c-Mpl-Ba/F3 cell. 570406-82-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-acylaminothiazole derivs. or salts thereof as c-Mpl receptor ligands for proliferating human c-Mpl-Ba/F3 cells and increasing platelets via promoting the formation of megakaryocytic colony)

RN 570406-82-5 CAPLUS

CN 3-Pyridinecarboxamide, 5-chloro-N-[4-(4-chloro-2-thieny1)-5-(4-cyclohexyl-1-piperaziny1)-2-thiazoly1]-6-[4-[(4-methyl-1-piperaziny1)carbonyl]-1-piperidiny1]-, hydrochloride (1:?) (CA INDEX NAME)

ΙT

●x HCl

REFERENCE COUNT:

18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:522965 CAPLUS

DOCUMENT NUMBER: 139:257123

TITLE: ZZ made EZ: influence of inhibitor configuration on

enzyme selectivity

AUTHOR(S): Rauh, Daniel; Klebe, Gerhard; Sturzebecher, Jorg;

Stubbs, Milton T.

CORPORATE SOURCE: Institut fur Pharmazeutische Chemie,

Philipps-Universitat Marburg, Marburg, D-35032,

Germany

SOURCE: Journal of Molecular Biology (2003), 330(4), 761-770

CODEN: JMOBAK; ISSN: 0022-2836

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Selectivity of drug targeting is necessary to forestall undesired side-effects. Here, the authors examine the structural grounds for the configuration-dependent selectivity of

2,7-bis(4-amidinobenzylidene)-cycloheptan-1-one (1) for factor Xa and trypsin: Previous studies showed that factor Xa is preferentially inhibited by the (Z,Z) configuration isomer of (1), while trypsin binds equally well to both (E,Z) and (Z,Z) forms. Using engineered trypsin variants, the authors find similar overall binding modes for the (E,Z) and (Z,Z) isomers. Minor changes in van der Waals' contacts to Tyr-99 (Leu in trypsin) explain the differential inhibition of factor Xa. The authors note differences in the exptl. electron densities observed from co-crystallization

and soaking expts.: while the co-crystallization of (1) with variants containing

Tyr-99 (Leu-99) reveal the exclusive presence of the (Z,Z) ((E,Z)) configurations resp., soaking expts. with either variant result in mixts. of (E,Z), (Z,Z) and (E,E). This discrepancy arises presumably from differences in the spatial (packing considerations) or chemical (crystallization

conditions) microenvironments. The results presented here represent an extreme example of the problems that face structure-based drug design, in particular the dangers inherent in relying on a single crystal structure for interpreting protein-ligand interactions.

IT 179050-05-6

RL: BSU (Biological study, unclassified); BIOL (Biological study) (bisamidinobenzylidene cycloheptanone and other compds. inhibition kinetics with trypsin and blood-coagulation factor Xa)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

2003:300620 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 138:321016

TITLE: Preparation of aromatic sulfone hydroxamic acids and

their use as protease inhibitors

INVENTOR(S): Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.;

Boehm, Terri L.; Carroll, Jeffery N.; Decrescenzo, Gary A.; Fobian, Yvette M.; Freskos, John N.; Getman, Daniel P.; McDonald, Joseph J.; Li, Madeleine H.; Hockerman, Susan L.; Howard, Carol Pearcy; Kolodziej,

Steve A.; Mischke, Deborah A.; Rico, Joseph G.; Stehle, Nathan W.; Tollefson, Michael B.; Vernier, William F.; Villamil, Clara I.; Kassab, Darren J.

PATENT ASSIGNEE(S): Pharmacia Corp., USA

SOURCE: U.S. Pat. Appl. Publ., 99 pp., Cont. of U.S. Ser. No.

570,731.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

I						KIND DATE					APP	LICAT	ION I		DATE					
	JS	2003		A1 20030417 B2 20040127				US	2001-	9899		20011121								
		66830	093			В2		2004	0127											
Ţ	JS	67502		B1 20040615					US	2000-	5707:	20000512								
	-	2467							-			20021119								
V	ΝO										WO 2002-US37093									
		W:										, BG,								
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC	, EE,	ES,	FΙ,	GB,	GD,	GE,	GH,		
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE	, KG,	ΚP,	KR,	KΖ,	LC,	LK,	LR,		
			•	,	,	,	,	,	,	,		, MW,	,	•	,	•	,	,		
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK	, SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,		
								YU,												
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SΖ	, TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,		
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	CG, CI, CM,				,	,	~ ,	,	,		, ,	,	,							
	AU 2002352795																			
		2002014450				A 20040914					BR	2002-	1445		20021119 20021119					
I	ΞP	1472244																		
		R:							•			, IT,	•				MC,	PT,		
	IE, SI, LT,						LV, FI, RO, MK,							•						
														20021119						
														20031208						
	MX 2004PA04803							2004	0811					20040520						
PRIOR	PRIORITY APPLN. INFO.:														A2 20000512					
							1997-													
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							1998-													
						US	1999-	2569	48		B2 1	9990	224							
						US	1999-	3118:	37	1	A2 19990514									
						US	2001-	9899	43		A 20011121									
											WO	2002-	US37	093	٦	W 2	0021	119		
OTHER	OTHER SOURCE(S):							138:	3210	16										

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
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AΒ Title compds. I [Z = C(0), O, S, NR6, etc.; R6 = H, CHO, sulfonvl, etc.; E= bond, C(O), S; Y = H, alkyl, alkoxy, haloalkyl, aryl, etc.; R = H, CN, perfluoroalkyl, trifluoromethoxy, etc.] are prepared For instance, Me chloroacetate is reacted with p-fluorothiophenol and the resulting sulfide oxidized to the sulfone (MeOHaq, Oxone), reacted with bis(2-bromoethyl)ether (DMAC, K2CO3, DMAP, Bu4NBr), saponified (THF, KOTMS) and coupled to a solid support to give II [P = polymer support]. II is reacted with Et isonipecotate (NMP, 80°, 65 h), the product saponified (dioxane, KOH), coupled with 3,5-dimethylpiperidine and released from the resin to give hydroxamic acid III. Example compds. are tested for inhibition of MMP-13, MMP-2 and MMP-1. I are useful for disorders associated with MMP and/or aggrecanase activity. ΤT 308821-69-4P 308821-71-8P 308821-72-9P 308821-73-0P 308821-74-1P 308821-75-2P 308821-76-3P 308821-77-4P 308821-79-6P 308821-81-0P 308821-82-1P 308821-83-2P 308821-85-4P 308821-87-6P 308821-89-8P 308821-91-2P 308821-93-4P 308821-96-7P 308821-97-8P 308821-98-9P 308821-99-0P 308822-00-6P 308822-01-7P 308822-02-8P 308822-04-0P 308822-05-1P 308822-07-3P 308822-08-4P 308822-09-5P 308822-11-9P 308822-13-1P 308822-14-2P 308822-16-4P 308822-17-5P 308822-23-3P 308822-24-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(aromatic sulfone hydroxamic acids and their use as protease inhibitors) 308821-69-4 CAPLUS

2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-phenylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

RN

CN

511536-31-5P

CRN 308821-68-3 CMF C30 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-71-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-phenylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-70-7 CMF C30 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-72-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-chlorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-73-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-methoxyphenyl)-3-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-74-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(5-chloro-2-methylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-75-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-methoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-76-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-acetyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308821-77-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-79-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-hydroxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-78-5 CMF C24 H36 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-81-0 CAPLUS

CN 1-Piperazineacetic acid, 4-[[1-[4-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]phenyl]-4-piperidinyl]carbonyl]-, ethyl ester, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 308821-80-9 CMF C26 H38 N4 O8 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-82-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-83-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-(2-furanylcarbonyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-85-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-84-3 CMF C27 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-87-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-86-5 CMF C25 H38 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-89-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-88-7 CMF C28 H41 N5 O7 S

PAGE 1-A

PAGE 2-A

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-91-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-[3-(dimethylamino)propyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-, 2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-90-1 CMF C27 H43 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-93-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-92-3 CMF C25 H38 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-96-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-ethoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-97-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-98-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-99-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-00-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-acetylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-01-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-nitrophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-02-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(3,5-dichloro-4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-

## (CA INDEX NAME)

RN 308822-04-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-nitro-4-(trifluoromethyl)phenyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-05-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[3-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-07-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-difluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-08-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-09-5 CAPLUS

RN 308822-11-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-10-8 CMF C25 H36 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-13-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-pyrazinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-12-0 CMF C26 H34 N6 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-14-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308822-16-4 CAPLUS

CM 1

CRN 308822-15-3 CMF C28 H43 N5 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-17-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-(3-chlorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-23-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(4-(trifluoromethyl)-2-pyrimidinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-24-4 CAPLUS

RN 511536-31-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[[4-[2-(dimethylamino)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-94-5 CMF C26 H41 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

AUTHOR(S):

L16 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:31507 CAPLUS

DOCUMENT NUMBER: 139:2828

TITLE: Reconstructing the binding site of factor Xa in

trypsin reveals ligand-induced structural plasticity Reyda, Sabine; Sohn, Christian; Klebe, Gerhard; Rall,

Kathrin; Ullmann, Dirk; Jakubke, Hans-Dieter; Stubbs,

Milton T.

CORPORATE SOURCE: Philipps-Universitat Marburg, Institut fur

Pharmazeutische Chemie der, Marburg, D35032, Germany SOURCE: Journal of Molecular Biology (2003), 325(5), 963-977

CODEN: JMOBAK; ISSN: 0022-2836

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

To investigate issues of selectivity and specificity in protein-ligand interactions, the authors have undertaken the reconstruction of the binding pocket of human factor Xa in the structurally related rat trypsin by site-directed mutagenesis. Three sequential regions (the "99"-, the "175"- and the "190"- loops) were selected as representing the major structural differences between the ligand binding sites of the two enzymes. Wild-type rat trypsin and variants X99rT and X(99/175/190)rT were expressed in yeast, and analyzed for their interaction with factor Xa and trypsin inhibitors. For most of the inhibitors studied, progressive loop replacement at the trypsin surface resulted in inhibitory profiles akin to factor Xa. Crystals of the variants were obtained in the presence of benzamidine (3), and could be soaked with the highly specific factor Xa inhibitor (1). Binding of the latter to X99rT results in a series of structural adaptations to the ligand, including the establishment of an "aromatic box" characteristic of factor Xa. In X(99/175/190)rT, introduction of the 175-loop results in a surprising re-orientation of the "intermediate helix", otherwise common to trypsin and factor Xa. The re-orientation is accompanied by an isomerization of the Cys 168-Cys 182 disulfide bond, and burial of the critical Phe 174 side-chain. In the presence of (1), a major re-organization of the binding site takes place to yield a geometry identical to that of factor Xa. In all, binding of (1) to trypsin and its variants results in significant structural rearrangements, inducing a binding surface strongly reminiscent of factor Xa, against which the inhibitor was optimized. The structural data reveal a plasticity of the intermediate helix, which has been implicated in the functional cofactor dependency of many trypsin-like serine proteinases. This approach of grafting loops onto scaffolds of known related structures may serve to bridge the gap between structural genomics and drug design. 179050-05-6 ΤТ

RL: BSU (Biological study, unclassified); BIOL (Biological study) (substrate/inhibitor; reconstructing binding pocket of human blood-coagulation factor Xa in trypsin in relation to ligand-induced structural plasticity)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

80

REFERENCE COUNT:

THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:939194 CAPLUS

DOCUMENT NUMBER: 139:127382

TITLE: Trypsin mutants for structure-based drug design:

expression, refolding and crystallisation

AUTHOR(S): Rauh, Daniel; Reyda, Sabine; Klebe, Gerhard; Stubbs,

Milton T.

CORPORATE SOURCE: Institut fur Pharmazeutische Chemie der

Philipps-Universitat Marburg, Marburg, D-35032,

Germany

SOURCE: Biological Chemistry (2002), 383(7/8), 1309-1314

CODEN: BICHF3; ISSN: 1431-6730

PUBLISHER: Walter de Gruyter GmbH & Co. KG

DOCUMENT TYPE: Journal LANGUAGE: English

AB New techniques in drug discovery are essential for the fast and efficient development of novel innovative drugs to deal with the challenges of the future. Structure detns. of various members of serine proteinases have provided a basis for computer-based drug design within this class of enzymes. In many proteins of interest, however, this course is blocked through a lack of suitable crystals. As a strategy for circumventing such problems, we have investigated the use of surrogate proteins for studying protein-ligand interactions. To test the feasibility of this approach, we have chosen bovine trypsin as a scaffold to reconstruct the ligand binding site of factor Xa. The simple modular design of trypsin, its readiness to crystallize and straightforward handling lends itself to such drug design by proxy. The expression, folding, purification, crystallog, and kinetic characterization of bovine trypsin forms with factor Xa phenotype are presented.

IT 179050-05-6

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(surrogate proteins for structure-based drug design: expression, refolding and crystallization)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT:

38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S):

L16 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:465810 CAPLUS

DOCUMENT NUMBER: 137:46797

TITLE: Diarylsulfonamides and N-arylbenzamides as nonpeptide

agonists and antagonists of vasopressin receptors Snyder, James P.; Liotta, Dennis C.; Venkatesan,

Hariharan; Wang, Minmin; Davis, Matthew C.

PATENT ASSIGNEE(S): Emory University, USA SOURCE: PCT Int. Appl., 159 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

		CENT				KIN	D	DATE		APPLICATION NO.							DATE				
		 √O 2002047679					_	20020620			WO	200		20011217							
	WO	2002047679		A3		20030612															
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	ΒA,	BE	В, В	ßG,	BR,	BY,	BZ,	CA,	CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	ΕC	C, E	E,	ES,	FI,	GB,	GD,	GE,	GH,		
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE	:, K	G,	KP,	KR,	KΖ,	LC,	LK,	LR,		
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN	1, M	IW,	MX,	MZ,	NO,	NZ,	OM,	PH,		
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK	C, S	L,	ΤJ,	TM,	TN,	TR,	TT,	TZ,		
			UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW	Ī									
		RW:	GH,	GM,	ΚE,	LS,	MW,	MΖ,	SD,	SL,	SZ	, T	Z,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,		
			KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	CH	I, C	Υ,	DE,	DK,	ES,	FI,	FR,	GB,		
			GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	TF	₹, В	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,		
			GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG	3									
	CA 2432825						A1 20020620				CA 2001-2432825					20011217					
	AU 2002031098							2002	0624		AU	200	2-3	31098	3	20011217					
	US 20020128208							20020912			US	200	1-2	23603	3			20011217			
PRIOF	RIORITY APPLN. INFO.:									US 2000-255946P			46P	I	P 20001215		215				
											WO	200	1-0	JS493	303	Ţ	W 2	0011	217		
OTHER	THED COHDOR(C).						ידיגם	127.	1670	7											

OTHER SOURCE(S): MARPAT 137:46797

GΙ

AB The title compds. were prepared as agonists and/or antagonists of V2, V1a or both receptors, in humans, for use in treating renal dysfunction or hypertension (no data). Thus, the sulfonamide I was obtained by

benzoylating p-phenylenediamine and reaction with (-)-camphorsulfonyl chloride.

IT 438192-03-1P 438192-04-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(diarylsulfonamides and N-arylbenzamides as nonpeptide agonists and antagonists of vasopressin receptors)

RN 438192-03-1 CAPLUS

CN Methanone, (4-methyl-1-piperazinyl)[1-(2-nitrophenyl)-4-piperidinyl]- (CA INDEX NAME)

RN 438192-04-2 CAPLUS

CN Methanone, [1-(2-aminophenyl)-4-piperidinyl](4-methyl-1-piperazinyl)- (CA INDEX NAME)

IT 438192-05-3P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(diarylsulfonamides and N-arylbenzamides as nonpeptide agonists and antagonists of vasopressin receptors)

RN 438192-05-3 CAPLUS

CN Benzamide, N-(1,1-dimethylethyl)-4-[[[2-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]amino]sulfonyl]- (CA INDEX NAME)

L16 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:256243 CAPLUS

DOCUMENT NUMBER: 136:294851

TITLE: Preparation of piperazine (hetero)aryl ketones and

sulfones as factor Xa inhibitors for treatment of

thrombosis or coagulation disorders

INVENTOR(S): Zhu, Bing-Yan; Jia, Zhaozhong Jon; Zhang, Penglie;

Huang, Wenrong; Wu, Yanhong; Zuckett, Jingmei Fan; Goldman, Erik A.; Wang, Lingyan; Song, Yonghong;

Scarborough, Robert M.

PATENT ASSIGNEE(S): Cor Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: Fatent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APPL	ICAT	DATE					
	2002026720 2002026720							WO 2	001-		20011001						
WO	W: AE, AG, AL,						D 7	DD	DC	DD	DV	DE	O 7	OII	CNT		
	w:																
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VN,	YU,	ZA,	ZW										
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG	
AU	2001	0948	24		Α		2002	0408		AU 2	001-	20011001					
EP							2003	0702	EP 2001-975505						20011001		
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
US	2004											3819.	28		20031016		
	PRIORITY APPLN. INFO.:									US 2000-236161P							
																0011	
OTHER SO	OURCE	(S):		WO 2001-US30315 W 20011001 MARPAT 136:294851													

GΙ

$$A-Q-V-N$$
 $N-G-J$ 
 $(R^2)_{0?2}$ 

AΒ Title compds. I [wherein A = (un) substituted imidazolinyl, tetrahydropyrimidinyl, tetrahydro-1H-1,3-diazepinyl, imidamido(alkyl), guanidinyl, amino(alkyl), ammoniomethyl, Ph, pyridinyl, etc.; Q = (un) substituted phenylene, pyrimidinediyl, pyridinediyl, pyrazinediyl, pyrrolediyl, furandiyl, thiophenediyl, piperidinediyl, or pyrrolidinediyl;  $\overline{V}$  = CH2 or CO; G =  $\overline{CO}$  or SO2; J = (un)substituted naphthyl, (iso)quinolinyl, quinazolinyl, indolyl, benzothiophenyl, benzofuranyl, benzimidazolyl, benzothiazolyl, benzoxazolyl, etc.; R1 and R2 = independently H, alkyl, hydroxyalkyl, aminoalkyl, cyanoalkyl, carboxyalkyl, alkoxycarbonylalkyl, or carbamoylalkyl; and pharmaceutically acceptable isomers, salts, hydrates, solvates, and prodrugs thereof] were prepared For example, 1-Boc-5-chloro-2-indolylsulfonyl chloride was coupled with 1-Boc-piperazine in DCM in the presence of pyridine to give the sulfonamide (95%). Deprotection using HCl gas (99%), followed by acylation with 4-cyanobenzoyl chloride in pyridine in the presence of DMAP (73%) and treatment with HCl and dimethylamine, afforded II. I are highly selective inhibitors of factor Xa and are useful for the treatment of diseases characterized by undesired thrombosis or coagulation disorders (no data).

IT 406719-60-6P 406719-61-7P 406719-62-8P 406719-63-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(factor Xa inhibitor; preparation of piperazine (hetero)aryl ketones and sulfones as factor Xa inhibitors for treatment of thrombosis or coagulation disorders)

RN 406719-60-6 CAPLUS

CN Benzenecarboximidamide, 3-[4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

RN 406719-61-7 CAPLUS

CN Benzenecarboximidamide, 3-[4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-N,N-dimethyl- (CA INDEX NAME)

RN 406719-62-8 CAPLUS

CN Benzenecarboximidamide, 2-[4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c} NH \\ H_2N-C \\ O \\ N \\ O \\ \end{array}$$

RN 406719-63-9 CAPLUS

CN Benzenecarboximidamide, 2-[4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl]carbonyl]-1-piperidinyl]-N,N-dimethyl- (CA INDEX NAME)

ΙT 406719-90-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazine (hetero)aryl ketones and sulfones as factor Xa inhibitors for treatment of thrombosis or coagulation disorders)

RN

406719-90-2 CAPLUS
Benzonitrile, 3-[4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-CN piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)

SOURCE:

PUBLISHER:

L16 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:724733 CAPLUS

DOCUMENT NUMBER: 136:102355

TITLE: Synthesis and evaluation of

1-arylsulfonyl-3-piperazinone derivatives as factor Xa

inhibitor

AUTHOR(S): Nishida, Hidemitsu; Miyazaki, Yutaka; Kitamura,

Yoshihiro; Ohashi, Masayuki; Matsusue, Tomokazu;

Okamoto, Atsushi; Hosaka, Yoshitaka; Ohnishi, Shuhei;

Mochizuki, Hidenori

CORPORATE SOURCE: Chemistry Laboratory, Research Center, Mochida

Pharmaceutical Co., Ltd., Shizuoka, 412-8524, Japan Chemical & Pharmaceutical Bulletin (2001), 49(10),

1237-1244

CODEN: CPBTAL; ISSN: 0009-2363 Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:102355

AB Intravascular clot formation is an important factor in a number of cardiovascular diseases. Therefore, the prevention of blood coagulation has become a major target for new therapeutic agents. One attractive approach is the inhibition of factor Xa (FXa), which is a key enzyme in coagulation cascade responsible for the generation of thrombin by limited proteolysis of its zymogen, prothrombin. We have investigated 1-arylsulfonyl-3-piperazinone derivs. containing a 4-(piperidino)pyridine group in place of guanidino and/or amidino groups, and discovered compound M55113, (4-[(6-Chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]-methyl]piperazinone), as a potent inhibitor of FXa (IC50=0.06 μM) with high selectivity for FXa over trypsin and thrombin.

IT 179049-92-4

RL: PAC (Pharmacological activity); BIOL (Biological study) (synthesis and evaluation of 1-arylsulfonyl-3-piperazinone derivs. as factor Xa inhibitor)

RN 179049-92-4 CAPLUS

CN Piperazine, 1-[[(1E)-2-(4-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:612045 CAPLUS

DOCUMENT NUMBER: 136:165

TITLE: Novel 4-piperidinopyridine inhibitors of oxidosqualene

cyclase-lanosterol synthase derived by consideration

of inhibitor pKa

AUTHOR(S): Brown, G. R.; Foubister, A. J.; Johnson, M. C.;

Newcombe, N. J.; Waterson, D.; Wells, S. L.

CORPORATE SOURCE: AstraZeneca, Macclesfield, Cheshire, SK10 4TG, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2001),

11(16), 2213-2216

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:165

AB Potent inhibition of rat microsomal oxidosqualene cyclase-lanosterol synthase (OSC) was maintained after structural modification of the 4-piperidinopyridine OSC inhibitor series. These novel analogs with a much lower pKa range (5.8-6.7) gave potent oral inhibition of rat cholesterol biosynthesis, and diminished effects on rat feeding.

IT 211819-83-9P 211819-96-4P 376361-39-6P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(piperidinopyridine inhibitors of oxidosqualene cyclase-lanosterol  $\operatorname{synthase}$ )

RN 211819-83-9 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(3-bromo-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 211819-96-4 CAPLUS

CN Methanone, [1-(3-fluoro-4-pyridinyl)-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 376361-39-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(5-bromo-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

IT 179050-10-3 188526-95-6

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(piperidinopyridine inhibitors of oxidosqualene cyclase-lanosterol  $\operatorname{synthase}$ )

RN 179050-10-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-95-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT:

8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:824220 CAPLUS

DOCUMENT NUMBER: 134:17399

TITLE: Aromatic sulfone hydroxamic acid metalloprotease

inhibitors

INVENTOR(S): Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.;

Boehm, Terri L.; Carroll, Jeffrey N.; Decrescenzo, Gary A.; Fobian, Yvette M.; Freskos, John N.; Getman, Daniel P.; McDonald, Joseph J.; Hockerman, Susan L.; Howard, Susan C.; Kolodziej, Stephen A.; Li, Madeleine Hui; Mischke, Deborah A.; Rico, Joseph G.; Stehle, Nathan W.; Tollefson, Michael B.; Vernier, William F.;

Villamil, Clara I.

PATENT ASSIGNEE(S): G.D. Searle and Co., USA SOURCE: PCT Int. Appl., 616 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PA	TENT	NO.		KIND DATE					APPL	ICAT	ION		DATE					
WO	2000	 0698	 21		A1 20001123					 WO 2	000-	 US67		20000515				
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	
		CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	
		ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	
		LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	
		SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	ΤZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	
		DK,	ES,	FI,	FR,	GB,	GR,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	
		CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG					
US	6750	228			В1		2004	0615		US 2	000-	5707	31		2	0000	512	
CA	2372	934			A1 20001123 CA 2000-23						2372	934	200005					
EP	1183	239			A1 20020306					EP 2	000-	9300	88		20000515			
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FΙ,	RO											
BR	2000	0105	62		Α		2003	0610		BR 2	000-	1056	2		2	0000	515	
JP	JP 2003520196				T 20030702					JP 2	000-	6182	38	20000515				
AU	AU 766792					B2 20031023							-	20000515				
NZ	NZ 515217					B2 20031023 A 20040430					000-	5152	17	20000515				
ZA	ZA 2001009006									ZA 2	001-	9006		20011031				
NO	NO 2001005543						2002	0110		NO 2	001-	5543		20011113				
	MX 2001PA11569									MX 2	001-	PA11	569	20011113				
PRIORIT	RIORITY APPLN. INFO.:								US 1999-311837					A 19990514				
										US 2000-570731					A 2	0000	512	
										US 1	997-	6600	7P		P 1	9971	114	
										US 1	998-	9534	7P		P 1	9980	804	
										US 1	998-	1010	80P		P 1	9980	918	
										US 1	999-	2569	48		B2 1	9990	224	
										WO 2	000-	US67	19	,	W 2	0000	515	
OTHER S	OTHER SOURCE(S):					PAT	134:	1739	9									

OTHER SOURCE(S): MARPAT 134:17399

GΙ

AB A treatment process is disclosed that comprises administering an effective amount of an aromatic sulfone hydroxamic acid I [W = H, cation, certain acyl or thioacyl groups; m, n, p = 0-2; (m+n+p) = 1 to 4; one of X, Y, and Z = CO, NH or derivs., O, S, SO, SO2, etc., and the other two = (un)substituted CH2; or XZ or ZY = (un)substituted NHCO, NHSO2, NHSO2, SS, OCO, etc., and the other one = (un) substituted CH2; or n = 0 and XZY = atoms to complete various N/O/S heterocycles; Q = 5- to 7-membered heterocycle with 1-2 N atoms, one bound to Ph, and with -AREY bound in para-type positions; A = bond, O, S, (un)substituted NH, COO, OCO, CH:CH, C.tplbond.C, N:N, NHNH, NHCOO, (un) substituted CONH, NHCO, etc.; R = alkylene, arylene, heteroarylene, etc., with provisos; E = bond, CONH, NHCO, CO, SO2, NHSO2, SO2NH, S, etc.; Y = absent, H, alkyl, alkoxy, aryl, aryloxy, heteroaryl, etc.] to a host having a condition associated with pathol. matrix metalloprotease (MMP) activity. I exhibit excellent inhibitory activity of one or more MMP enzymes, such as MMP-2, MMP-9 and MMP-13, while exhibiting substantially less inhibition of (at least) MMP-1. Also disclosed are metalloprotease inhibitor compds. having such selective activities, processes for manufacture of such compds., and pharmaceutical compns. using such inhibitors. The compds. are potentially useful against a wide variety of conditions, notably as antiinflammatory, antiangiogenesis, and antitumor agents. Over 900 example compds. are listed, most with supporting phys. data, and many with synthetic details. For instance, Et N-(tert-butoxycarbonyl)-4-(4-fluorophenylsulfonyl)-4piperidinecarboxylate (preparation given) was subjected to a sequence of: (1) etherification with 4-(CF3S)C6H4OH (100%); (2) alkaline hydrolysis of the ester (100%); (3) amidation with THP-ONH2 (45%); and (4) acid deprotection of the THP ether (40%), to give title compound II.HCl. The latter salt selectively inhibited MMP-13 with IC50 0.2 nM, and MMP-2 with IC50 0.1 nM, but with IC50 >10,000 nM against MMP-1. 308821-69-4P 308821-71-8P 308821-72-9P

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IT 308821-69-4P 308821-71-8P 308821-72-9P 308821-73-0P 308821-74-1P 308821-75-2P 308821-76-3P 308821-77-4P 308821-79-6P 308821-81-0P 308821-82-1P 308821-83-2P 308821-85-4P 308821-87-6P 308821-89-8P 308821-91-2P 308821-93-4P 308821-95-6P 308821-96-7P 308821-97-8P 308821-98-9P

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308821-99-0P 308822-00-6P 308822-01-7P
     308822-02-8P 308822-04-0P 308822-05-1P
     308822-07-3P 308822-08-4P 308822-09-5P
     308822-11-9P 308822-13-1P 308822-14-2P
     308822-16-4P 308822-17-5P 308822-23-3P
     308822-24-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (drug candidate; preparation of aromatic sulfone hydroxamic acids as
        metalloprotease inhibitors)
     308821-69-4 CAPLUS
RN
     2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-phenylethyl)-
CN
     1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-,
     2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)
     CM
          1
     CRN 308821-68-3
     CMF C30 H40 N4 O6 S
                                           \mathrm{CH}_2-\mathrm{CH}_2-\mathrm{Ph}
HO-NH-
       С
       0
     CM
          2
     CRN 76-05-1
     CMF C2 H F3 O2
 -c-со<sub>2</sub>н
  F
     308821-71-8 CAPLUS
RN
     2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-phenylethyl)-
CN
     1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-,
     2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)
     CM
          1
     CRN
          308821-70-7
     CMF
         C30 H40 N4 O6 S
```

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-72-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-chlorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-73-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-methoxyphenyl)-3-methyl-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-74-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(5-chloro-2-methylphenyl)-1-

 $\label{lem:piperazinyl} $$ piperazinyl] -1-piperidinyl] phenyl] sulfonyl] tetrahydro-N-hydroxy- (CA INDEX NAME)$ 

RN 308821-75-2 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-methoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-(CA INDEX NAME)

RN 308821-76-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-acetyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308821-77-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-79-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-hydroxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-78-5 CMF C24 H36 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-81-0 CAPLUS

CN 1-Piperazineacetic acid, 4-[[1-[4-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]phenyl]-4-piperidinyl]carbonyl]-, ethyl ester, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 308821-80-9 CMF C26 H38 N4 O8 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-82-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-83-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-furanylcarbonyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-85-4 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-

piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-, 2,2,2-trifluoroacetate
(1:1) (CA INDEX NAME)

CM 1

CRN 308821-84-3 CMF C27 H40 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-87-6 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-86-5 CMF C25 H38 N4 O6 S

CM 2

CRN 76-05-1

CMF C2 H F3 O2

RN 308821-89-8 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-88-7 CMF C28 H41 N5 O7 S

PAGE 1-A

PAGE 2-A

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-91-2 CAPLUS

CM 1

CRN 308821-90-1 CMF C27 H43 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-93-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308821-92-3 CMF C25 H38 N4 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-95-6 CAPLUS

CM 1

CRN 308821-94-5 CMF C26 H41 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308821-96-7 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2-ethoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-97-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-fluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308821-98-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308821-99-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-00-6 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(4-acetylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-01-7 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-nitrophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-02-8 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(3,5-dichloro-4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-

# (CA INDEX NAME)

RN 308822-04-0 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-nitro-4-(trifluoromethyl)phenyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-05-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[3-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-07-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-(2,4-difluorophenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-08-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(4-pyridinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-09-5 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[4-(trifluoromethyl)phenyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-11-9 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-10-8 CMF C25 H36 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-13-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-pyrazinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 308822-12-0 CMF C26 H34 N6 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-14-2 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

RN 308822-16-4 CAPLUS

CM 1

CRN 308822-15-3 CMF C28 H43 N5 O7 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 308822-17-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-(3-chlorophenyl))-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

RN 308822-23-3 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(4-(trifluoromethyl)-2-pyrimidinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 308822-24-4 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

2000:811119 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 134:125540

TITLE: A Novel Series of 4-Piperidinopyridine and

4-Piperidinopyrimidine Inhibitors of 2,3-Oxidosqualene

Cyclase-Lanosterol Synthase

Brown, George R.; Hollinshead, David M.; Stokes, AUTHOR(S):

Elaine S. E.; Waterson, David; Clarke, David S.; Foubister, Alan J.; Glossop, Steven C.; McTaggart, Fergus; Mirrlees, Donald J.; Smith, Graham J.; Wood,

Robin

AstraZeneca, Macclesfield Cheshire, SK10 4TG, UK CORPORATE SOURCE:

SOURCE: Journal of Medicinal Chemistry (2000), 43(26),

4964-4972

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB A novel series of 4-piperidinopyridines and 4-piperidinopyrimidines showed

potent and selective inhibition of rat 2,3-oxidosqualene

cyclase-lanosterol synthase (OSC) (e.g. 26 IC50 rat =  $398\pm25$  nM, human = 112±25 nM) and gave selective oral inhibition of rat cholesterol biosynthesis (26 ED80 =  $1.2\pm0.3$  mg/kg, n = 5; HMG-CoA reductase

inhibitor simvastatin ED80 =  $1.2\pm0.3$  mg/kg, n = 5). The piperidinopyrimidine OSC inhibitors have a significantly lower pKa than the corresponding pyridine or the previously reported quinuclidine OSC inhibitor series. This indicates that other novel OSC inhibitors may be found in analogs of this series across a broader pKa range (6.0-9.0). These series may yield novel hypocholesterolemic agents for the treatment

of cardiovascular disease.

179050-10-3P 179050-34-1P 188526-30-9P ΤТ

188526-34-3P 188526-36-5P 188526-41-2P

188526-42-3P 188526-43-4P 188526-95-6P

321857-45-8P 321857-46-9P 321857-47-0P

321857-48-1P 321857-49-2P 321857-50-5P

321857-51-6P 321857-52-7P 321857-53-8P

321857-54-9P 321857-55-0P

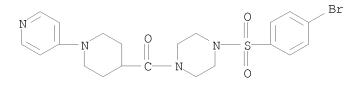
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation)

(preparation and structure-activity relations of piperidinopyridines and piperidinopyrimidines as inhibitors of oxidosqualene cyclase-lanosterol synthase)

179050-10-3 CAPLUS RN

Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-CN piperidinyl]- (CA INDEX NAME)



RN 179050-34-1 CAPLUS

CN Methanone, [4-[(4-iodophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-30-9 CAPLUS

CN Methanone, [4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-34-3 CAPLUS

CN Methanone, [4-(phenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-36-5 CAPLUS

CN Methanone, [4-[(3-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-41-2 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-42-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)methyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-43-4 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-95-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-45-8 CAPLUS

CN Methanone, [4-[(3-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-46-9 CAPLUS

CN Methanone, [4-[(2,4-difluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-47-0 CAPLUS

CN Methanone, [4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-48-1 CAPLUS

CN Methanone, [1-(4-pyridinyl)-4-piperidinyl][4-[[3-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 321857-49-2 CAPLUS

CN Methanone, [4-[(4-methylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-50-5 CAPLUS

CN Piperazine, 1-(4-bromobenzoyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 321857-51-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4,5-dihydro-2-oxazolyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-52-7 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4,5-dihydro-2-thiazolyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-53-8 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(3-methyl-1,2,4-thiadiazol-5-yl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-54-9 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 321857-55-0 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridazinyl)-4-piperidinyl]- (CA INDEX NAME)

IT 321857-56-1P 321857-58-3P 321857-59-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and structure-activity relations of piperidinopyridines and piperidinopyrimidines as inhibitors of oxidosqualene cyclase-lanosterol synthase)

RN 321857-56-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(2-pyrimidinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 321857-58-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(5,6-dichloro-4-pyridazinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 321857-59-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(4-pyridazinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

REFERENCE COUNT:

23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:608722 CAPLUS

DOCUMENT NUMBER: 133:193079

TITLE: Preparation of arylsulfonylheterocyclylhydroxamic

acids and related compounds as matrix metalloprotease

inhibitors

INVENTOR(S): Barta, Thomas E.; Becker, Daniel P.; Bedell, Louis J.;

Boehm, Terri L.; Carroll, Jeffery N.; De Crescenzo, Gary A.; Fobian, Yvette M.; Freskos, John N.; Getman, Daniel P.; McDonald, Joseph J.; Hanson, Gunnar J.; Hockerman, Susan L.; Howard, Susan C.; Kolodziej, Steve A.; Li, Hui; Mischke, Deborah A.; Rico, Joseph G.; Stehle, Nathan W.; Tollefson, Michael B.; Vernier, William F.; Villamil, Clara I.; Rao, Shashidahar N.

PATENT ASSIGNEE(S): G.D. Searle and Co., USA SOURCE: PCT Int. Appl., 851 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PA'	TENT	NO.			KIND DATE					APP	LICAT		DATE					
	2000	0503	96		A1 20000831				WO	2000-								
	W:										BR,							
		CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD	GE,	GH,	GM,	HR,	HU,	ID,	IL,	
		IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	KΖ,	LC	, LK,	LR,	LS,	LT,	LU,	LV,	MA,	
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PΙ	, PT,	RO,	RU,	SD,	SE,	SG,	SI,	
		SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG	us,	UZ,	VN,	YU,	ZA,	ZW		
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	TZ	, UG,	ZW,	AT,	BE,	CH,	CY,	DE,	
		DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU	, MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE	SN,	TD,	TG					
US	US 20010039287 CA 2371876 AU 2000034785 HU 2002000239						2001	1108		US	1999-		19990224					
CA	CA 2371876					A1 20000831					2000-	2371		20000222				
AU	2000034785				A 20000914					AU	2000-	3478		20000222				
HU	J 2002000239				A2	2002	0629		HU	2002-		20000222						
HU	2002		А3	2003	0428													
	EP 1230219				A1	2002	0814	EP 2000-913317						20000222				
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,	
							RO,											
BR	BR 2000008491				A	2002	0917		BR	2000-		2	0000	222				
JP	2002	5373	78		${f T}$	2002	1105		JΡ	2000-		20000222						
NZ	5136	48			A	2004	0227		NZ	2000-		20000222						
ИО	JP 2002537378 NZ 513648 NO 2001003963				A	2001	1023		NO	2001-		20010815 20010816						
ZA	ZA 2001006780				А	2002	0816		ZA	2001-		20010816						
IN	IN 2001CN01174				A	2005			IN	2001-		20010821						
MX					A 20020408					MX	2001-		20010823					
US	US 20020177588				A1	2002	1128		US	2001-		20010917						
US	6750	233			В2	2004	0615											
RIORIT	IORITY APPLN. INFO.:								US	1999-	2569	48		A 1	9990.	224		
										US	1997-	6600	7P		P 1	9971	114	
										US	1998- 1998-	9534	7P		P 1	9980	804	
										US	1998-	9550	1P		P 1	9980	806	
										US	1998-	1010	80P		P 1	9980	918	
											2000-					0000		
THER S	HER SOURCE(S):					PAT	133:	1930										

GΙ

A process for treating conditions associated with pathol. matrix AΒ metalloproteinase (MMP) activity comprises administration of compds. having inhibitory activity against >1 of MMP-2, MMP-9, and MMP-13, while exhibiting substantially less inhibition of MMP-1. The compds. are of the form HONHCOCR1R2SO2R3 [R1, R2 = H; R1R2 = atoms to form a 5-8 membered ring containing 1-3 heteroatoms; R3 = (substituted) aryl, heteroaryl]. Thus, 4-PhOC6H4SH was heated in Me2SO to give the disulfide dimer, which in THF was added to a mixture of Et N-tert-butoxycarbonylisonipecotate (preparation given) and LDA in THF at  $-60^{\circ}$  to room temperature to give 40% sulfide, which was oxidized with m-ClC6H4CO(OOH) to give 59% sulfone. The Et ester was saponified with NaOH in EtOH/H2O to give 100% acid, which in DMF was treated with hydroxybenzotriazole, EDC, 4-methylmorpholine, and aqueous NH2OH to give title compound I. I inhibited MMP-2 with IC50 = 0.2 nM. Pharmacol., pharmacokinetic, and toxicol. data are given for selected compds.

IT 226392-08-1P 226395-89-7P 226395-90-0P

Ι

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylsulfonylheterocyclylhydroxamic acids and related compds. as matrix metalloprotease inhibitors)

RN 226392-08-1 CAPLUS

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 226392-07-0 CMF C23 H34 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 226395-89-7 CAPLUS

CN 4-Piperidinecarboxamide, 1-cyclopropyl-4-[[4-[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:3) (CA INDEX NAME)

●3 HCl

RN 226395-90-0 CAPLUS

CN 4-Piperidinecarboxamide, 4-[[4-[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-hydroxy-1-(2-methoxyethyl)-, hydrochloride (1:3) (CA INDEX NAME)

●3 HC1

IT 226400-39-1P 226400-41-5P 226400-42-6P
 226400-45-9P 226400-48-2P 226400-51-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of arylsulfonylheterocyclylhydroxamic acids and related compds. as matrix metalloprotease inhibitors)

RN 226400-39-1 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, ethyl ester (CA INDEX NAME)

RN 226400-41-5 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-(CA INDEX NAME)

RN 226400-42-6 CAPLUS

CN 4-Piperidinecarboxamide, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (CA INDEX NAME)

RN 226400-45-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-, ethyl ester (CA INDEX NAME)

RN 226400-48-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[[4-[4-[[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-(CA INDEX NAME)

RN 226400-51-7 CAPLUS

CN 4-Piperidinecarboxamide, 4-[[4-[4-[[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:457033 CAPLUS

DOCUMENT NUMBER: 133:74029

TITLE: Heterocyclic amides as inhibitors of factor Xa INVENTOR(S): Klimkowski, Valentine Joseph; Kyle, Jeffrey Alan;

Masters, John Joseph; Wiley, Michael Robert

PATENT ASSIGNEE(S): Eli Lilly and Co., USA SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIND		DATE			APP:	LICAT	DATE							
WO	2000		A1	_	20000706			WO :	 1999-		1	 9991	215						
	W:	ΑE,	AL,	ΑM,	ΑT,	AU,	AZ,	BA,	BB,	BG	, BR,	BY,	CA,	CH,	CN,	CR,	CU,		
		CZ,	DE,	DK,	DM,	EE,	ES,	FΙ,	GB,	GD	, GE,	GH,	GM,	HR,	HU,	ID,	IL,		
		IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC	, LK,	LR,	LS,	LT,	LU,	LV,	MA,		
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	NΖ,	PL	, PT,	RO,	RU,	SD,	SE,	SG,	SI,		
		SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG	, US,	UZ,	VN,	YU,	ZA,	ZW			
	RW:	GH,	GM,	KΕ,	LS,	MW,	SD,	SL,	SZ,	TZ	, UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,		
		DK,	ES,	FΙ,	FR,	GB,	GR,	IE,	ΙΤ,	LU	, MC,	NL,	PT,	SE,	BF,	ΒJ,	CF,		
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE	, SN,	TD,	ΤG						
CA	A 2356214			A1		2000	0706		CA :	1999-	9-2356214 19991					215			
EP	1140839			A1		2001	20011010 EP 1999-967344						1999121						
EP	P 1140839				В1		2004	0317											
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PΤ,		
					LV,														
	JP 2002533442									-				19991215					
	AT 261941														19991215				
ES	2217									-	1999-					9991	215		
US	US 6660739					B1 20031209				US 2001-857748						20010608			
PRIORIT	RIORITY APPLN. INFO.:									US :	1998-	1135	95P		P 1	9981	224		
										WO :	1999-	US29	834		W 1	9991	215		
OTHER SO	IHER SOURCE(S):					PAT	133:	74029	9										

$$R-X-SO_2-N$$
  $N-CO-R^1$   $I$   $(CH_2)_m$   $(CH_2)_m$   $(CH_2)_n$   $II$ 

AB The compds. I (or a pharmaceutically acceptable salt thereof) (R = Ph or 2-naphthalenyl either of which may bear one or more halo, trifluoromethyl, methoxy or Me substituents; X = a direct bond, methylene, ethylene or ethen-1, 2-diyl; and R1 = is Q2A, Q2B, or Q2C in which Q2A (showing the CO to which it is attached) is of formula (II) in which each of m and n

independently is 0 or 1; Q2B is 1-piperazinyl which bears at the 4-position the group R; Q2C is 3,4-didehydropiperidin-4-yl which bears at the 1-position the group R) pharmaceutical compns. thereof and its use as an inhibitor of factor Xa, as well as a process for its preparation and intermediates therefor are claimed. For example,

1-(piperidin-4-ylcarbonyl)-4-(6-chloronaphthalen-2-ylsulfonyl)piperazine trifluoroacetate (III) was prepared in a multistep process from 6-amino-2-naphthalenesulfonic acid, N-BOC-piperazine and

N-BOC-isonipecotic acid and subsequently the piperidine N was alkylated to form the alkylated derivs. of III.

IT 280107-61-1P 280107-62-2P 280107-64-4P

280107-68-8P 280107-69-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation as anticoagulants)

RN 280107-61-1 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl](1-cyclopentyl-4-piperidinyl)- (CA INDEX NAME)

RN 280107-62-2 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl](1-cyclohexyl-4-piperidinyl)- (CA INDEX NAME)

RN 280107-64-4 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl](1-cycloheptyl-4-piperidinyl)- (CA INDEX NAME)

RN 280107-68-8 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(tetrahydro-2H-pyran-4-yl)-4-piperidinyl]- (CA INDEX NAME)

RN 280107-69-9 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(tetrahydro-2H-thiopyran-4-yl)-4-piperidinyl]- (CA INDEX NAME)

1

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:350651 CAPLUS

DOCUMENT NUMBER: 131:18929

TITLE: Preparation of arylsulfonylheterocyclylhydroxamic

acids and related compounds as matrix metalloprotease

inhibitors

INVENTOR(S):
Barta, Thomas E.; Becker, Daniel P.; Boehm, Terri L.;

De Crescenzo, Gary A.; Villamil, Clara I.; McDonald,

Joseph J.; Freskos, John N.; Getman, Daniel P.

PATENT ASSIGNEE(S): G.D. Searle and Co., USA SOURCE: PCT Int. Appl., 840 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

	TENT	NO.			KIND DATE					APPL	ICAT	ION :		DATE						
		 5687														9981	 112			
		AL,																		
							GD,													
							LK,													
							RO,													
							VN,			54,	50,	υ <b>-</b> ,	D10,	о <b>л</b> ,	10,	111,	,			
	RW:	GH,								7.W.	АТ.	BE.	CH.	CY.	DE.	DK.	ES.			
	1000						IT,													
							MR,				•	~_,	22,	20,	02,	00,	01,			
CA	2306											2306	460		1	9981	112			
AII	9913	3732			А	A1 19990527 CA A 19990607 AH						ΔII 1999-13732					19981112			
AII	7561	50			B2		2003	0102		110 1		10,0	_		_	J J O I				
BR	9814	1643			A	A 19990607 AU 1999-1373 B2 20030102 A 20001003 BR 1998-1464						1464	3	19981112						
EP	1042	290			A1 20001003					EP 1998-957485					1	9981	112			
		AT,																FΤ		
ιΤΡ							2001													
N7.	JP 2001523662 NZ 503485						2002	1025	JP 2000-521071 NZ 1998-503485						19981112					
RU	RU 2250105				C2	C2 20050420				RU 2000-115948					19981112					
7.A	ZA 9810412				A 20021025 C2 20050420 A 19991209					RU 2000-115948 ZA 1998-10412						19981113				
US	US 20010014688				A 1		2001	0816		US 1998-191129						19981113				
	NO 2000002469															20000512				
					A 20010930															
US	US 6541489				В1		2003		US 2000-554082						20000731					
US	US 6541489 US 20020177588 US 6750233				A1		2002		US 2001-954451						20010917					
US	US 6750233				В2		2004	0615												
US	US 20040048852				A1 20040311					US 2	003-	3379	42		20030107					
					B2 20050510															
						A1 20060420					US 2005-46645					0050	128			
	RIORITY APPLN. INFO.										US 1997-66007P									
				• •						US 1	998-	9534	7P		 P 1	9980	804			
										US 1	.998 <mark>-</mark> .998-	9550	1P		 P 1	9980	806			
										US 1	998-	1010	80P		 P 1	9980	918			
											998-									
											999-					9990				
										US 2	000-	5540	82			0000				
										US 2	003-	3379	42			0030				
OTHER S	OURCE	E(S):			MARI	PAT	131:	1892						·		- 0 - 0	_ •			

AΒ A process for treating conditions associated with pathol. matrix metalloproteinase (MMP) activity comprises administration of compds. having inhibitory activity against >1 of MMP-2, MMP-9, and MMP-13, while exhibiting substantially less inhibition of MMP-1. The compds. are of the form HONHCOCR1R2SO2R3 [R1, R2 = H; R1R2 = atoms to form a 5-8 membered ring containing 1-3 heteroatoms; R3 = (substituted) aryl, heteroaryl]. Thus, 4-PhOC6H4SH was heated in Me2SO to give the disulfide dimer, which in THF was added to a mixture of Et N-tert-butoxycarbonylisonipecotate (preparation given) and LDA in THF at  $-60^{\circ}$  to room temperature to give 405 sulfide, which was oxidized with m-ClC6H4CO(OOH) to give 59% sulfone. The Et ester was saponified with NaOH in EtOH/H2O to give 100% acid, which in DMF was treated with hydroxybenzotriazole, EDC, 4-methylmorpholine, and aqueous NH2OH to give title compound (I). I inhibited MMP-2 with IC50 = 0.2 nM. ΙT 226392-08-1P 226395-89-7P 226395-90-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylsulfonylheterocyclylhydroxamic acids and related compds. as matrix metalloprotease inhibitors)

RN 226392-08-1 CAPLUS

2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CN

CRN 226392-07-0 CMF C23 H34 N4 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2 10/553,803

RN 226395-89-7 CAPLUS

CN 4-Piperidinecarboxamide, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:3) (CA INDEX NAME)

●3 HCl

RN 226395-90-0 CAPLUS

CN 4-Piperidinecarboxamide, 4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-hydroxy-1-(2-methoxyethyl)-, hydrochloride (1:3) (CA INDEX NAME)

•3 HCl

IT 226400-39-1P 226400-41-5P 226400-42-6P 226400-45-9P 226400-48-2P 226400-51-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of arylsulfonylheterocyclylhydroxamic acids and related compds. as matrix metalloprotease inhibitors)

RN 226400-39-1 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-, ethyl ester (CA INDEX NAME)

RN 226400-41-5 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

RN 226400-42-6 CAPLUS

CN 4-Piperidinecarboxamide, 1-cyclopropyl-4-[[4-[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (CA INDEX NAME)

RN 226400-45-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-, ethyl ester (CA INDEX NAME)

RN 226400-48-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[[4-[4-[[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-(CA INDEX NAME)

RN 226400-51-7 CAPLUS

CN 4-Piperidinecarboxamide, 4-[[4-[4-[[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-1-(2-methoxyethyl)-N-[(tetrahydro-2H-pyran-2-yl)oxy]- (CA INDEX NAME)

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:113671 CAPLUS

DOCUMENT NUMBER: 130:168388

TITLE: Pyridyl- and pyrimidyl-heterocyclic compounds

inhibiting oxidosqualene cyclase

INVENTOR(S): Newcombe, Nicholas John; Johnson, Michael Clyde

PATENT ASSIGNEE(S): Zeneca Limited, UK SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE				LICAT								
WO	WO 9906395					_	19990211							19980723					
	W:	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR	, BY,	CA,	CH,	CN,	CU,	CZ,	DE,		
		DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	HR	R, HU,	ID,	IL,	IS,	JP,	ΚE,	KG,		
		KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU	I, LV,	MD,	MG,	MK,	MN,	MW,	MX,		
		NO,	NΖ,	PL,	PT,	RO,	RU,	SD,	SE,	SG	s, SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,		
		UA,	UG,	US,	UZ,	VN,	YU,	ZW,	AM,	ΑZ	, BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM		
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SZ,	UG,	ZW	, AT,	BE,	CH,	CY,	DE,	DK,	ES,		
		FΙ,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL	, PT,	SE,	BF,	ВJ,	CF,	CG,	CI,		
		CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD	, TG								
AU	9885	471			Α		1999	0222		AU	1998-	8547	1		1	9980	723		
EP	1000	057			A1		2000	0517		EΡ	1998-	9364	94		1	9980	723		
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,		
		ΙE,																	
											JP 2000-505153					CZ, DE, KE, KG, MW, MX, TR, TT, TJ, TM DK, ES, CG, CI, 9980723 MC, PT,			
US 6335341					В1		20020101			US	2000-463326				2000012		124		
PRIORITY APPLN. INFO.:										GB	1997-	1589	2		A 1	9970	729		
										WO	1998-	GB21	96	,	W 1	9980	723		
OTHER SOURCE(S): GI					MAR	PAT	130:	1683	88										

$$R^1$$
 $T^2$ 
 $T^3$ 
 $T^3$ 
 $T^3$ 

AB The title compds. I [G = CH, N; R1 = H, halo, (1-6C)alkyl, halo(1-6C)alkyl, cyano, nitro, (1-6C)alkoxycarbonyl, NR3R4 (R3, R4 = H, (1-6C)alkyl), up to 3 R1 groups may be present; T1 = CH, N; T2, T3 = N, CR (R = H, hydroxyl, (C1-4)alkyl); either ring containing T2 or T3 is optionally substituted with an oxo group; R2 = H, (1-4C)alkyl; Q = SO2, CO, CH2; Ar = five or six-membered heterocycle containing up to 3 heteroatoms selected from nitrogen, oxygen and sulfur, Ph, phenyl(2-6C)alkenyl, naphthyl in which any Ar group is optionally substituted by one or more substituents selected from (1-6C)alkyl, halo, halo(1-6C)alkyl, (1-6C)alkoxy,

Ι

(1-6C) alkoxycarbonyl, cyano, (1-6C) alkylamido, nitro, NR3R4 (R3, R4 = H, (1-4C) alkyl) both T2 and T3 are not N and when T2 is CR then T1 is not CH], useful in inhibiting oxidosqualene cyclase (no data), were prepared E.g., 1-(4-chlorophenylsulfonyl)-4-[1-(2-methylpyrimidin-4-yl) piperazin-4-ylmethyl]piperidine was prepared

IT 220358-97-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridyl- and pyrimidyl-heterocyclic compds. as inhibitors of oxidosqualene cyclase)

RN 220358-97-4 CAPLUS

CN Piperazine, 1-(4-bromobenzoyl)-4-[[4-hydroxy-1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

IT 203522-53-6 220359-08-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of pyridyl- and pyrimidyl-heterocyclic compds. as inhibitors of oxidosqualene cyclase)

RN 203522-53-6 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]-1-piperazinyl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 220359-08-0 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(6-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:568819 CAPLUS

DOCUMENT NUMBER: 129:189344

ORIGINAL REFERENCE NO.: 129:38465a,38468a

TITLE: 1-(Arylsulfonyl)-4-[[1-(4-pyridyl)piperazin-4-

yl]carbonyl]piperazines and analogs useful as

oxido-squalene cyclase inhibitors

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

Brown, George Robert
Zeneca Limited, UK
PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

WO 9835956  Al 19980820  W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, IDK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, IKP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, INO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, UA, UG, US, UZ, VN, YU, ZW	DATE		
DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, I KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, I NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,	209		
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, I NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,	DE,		
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,	KG,		
	MX,		
UA, UG, US, UZ, VN, YU, ZW	TT,		
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, I	FI,		
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, (	CM,		
GA, GN, ML, MR, NE, SN, TD, TG			
AU 9859996 A 19980908 AU 1998-59996 1998020	209		
EP 966460 A1 19991229 EP 1998-903174 1998020	209		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, I	PT,		
IE, FI			
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ZA 9801177 A 19980813 ZA 1998-1177 1998023	212		
US 6440972 B1 20020827 US 1999-367400 1999083	313		
PRIORITY APPLN. INFO.: GB 1997-2946 A 199702	213		
GB 1997-15734 A 199707	726		
GB 1997-19237 A 199709	911		
WO 1998-GB405 W 1998020	209		

OTHER SOURCE(S): MARPAT 129:189344

GΙ

This invention concerns heterocyclic compds. I [R = halo, cyano, NO2, CO2H, alkyl, alkoxy, alkanoyl, alkoxycarbonyl, haloalkyl; R1 = H, (di)(alkyl)amino, halo, cyano, NO2, CO2H, alkyl, alkoxy, alkanoyl, alkylthio, etc.; m = 1 or 2; A = bond or C1-4 alkylene; X, Y = N, CR2; R2 = H, alk(en/yn)yl; Z = N, CH; Q = (un)substituted heteroaryl, Ph, naphthyl, etc.; rings containing X, Y, and Z may be substituted; with several provisos], which are useful for inhibiting oxido-squalene cyclase, processes for their preparation, and pharmaceutical compns. containing them.

The

invention is also concerned with such heterocyclic compds. capable of inhibiting cholesterol biosynthesis, and hence lowering cholesterol levels in blood plasma. The invention also relates to methods of using such compds. in diseases and medical conditions such as hypercholesterolemia and atherosclerosis. For instance, chlorination of  $1-[(4-\text{bromophenyl})\,\text{sulfonyl}]-4-[[1-(4-\text{pyridyl})\,\text{piperidin-4-}]$  yl]carbonyl]piperazine with N-chlorosuccinimide in MeCN gave title compound II. The latter gave about 79% inhibition of rat microsomal oxido-squalene cyclase in vitro at 0.01  $\mu\text{M}$ , and likewise gave about 79% inhibition of rat cholesterol biosynthesis in vivo at 2 mg/kg orally. The compds. showed no overt toxicity at several multiples of the min. ID. Several standard pharmaceutical formulations are described.

IT 211820-04-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of

(arylsulfonyl)[(pyridylpiperazinyl)carbonyl]piperazines and analogs as oxido-squalene cyclase inhibitors)

RN 211820-04-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(3-fluoro-4-pyridinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

IT 211819-82-8P 211819-83-9P 211819-84-0P 211819-86-2P 211819-87-3P 211819-88-4P 211819-89-5P 211819-90-8P 211819-95-3P 211819-96-4P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of (arylsulfonyl)[(pyridylpiperazinyl)carbonyl]piperazines and analogs as oxido-squalene cyclase inhibitors)

RN 211819-82-8 CAPLUS

## 10/553,803

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(3-chloro-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 211819-83-9 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(3-bromo-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 211819-84-0 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(5-chloro-2-methyl-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 211819-86-2 CAPLUS

CN Methanone, [1-(5-bromo-2-methyl-4-pyridinyl)-4-piperidinyl][4-[(4-bromophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 211819-87-3 CAPLUS

CN Methanone, [1-(3-chloro-4-pyridinyl)-4-piperidinyl][4-[(3-

fluorophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} F \\ \hline \\ O \\ S \\ \hline \\ O \\ \end{array}$$

RN 211819-88-4 CAPLUS

CN Methanone, [1-(3-chloro-4-pyridinyl)-4-piperidinyl][4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 211819-89-5 CAPLUS

CN Methanone, [1-(3-chloro-4-pyridinyl)-4-piperidinyl][4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 211819-90-8 CAPLUS

CN Methanone, [1-(3-chloro-4-pyridinyl)-4-piperidinyl][4-[(4-methylphenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 211819-95-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(3-fluoro-4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

10/553,803

RN 211819-96-4 CAPLUS

CN Methanone, [1-(3-fluoro-4-pyridinyl)-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

IT 179050-10-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of
(arylsulfonyl)[(pyridylpiperazinyl)carbonyl]piperazines and analogs as
oxido-squalene cyclase inhibitors)

RN 179050-10-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:126242 CAPLUS

DOCUMENT NUMBER: 128:192661

ORIGINAL REFERENCE NO.: 128:38066h,38067a TITLE: Preparation of

pyrimidinylpiperidinylcarbonylpiperazines and related

compounds as inhibitors of oxidosqualene cyclase.

Brown, George Robert; Newcombe, Nicholas John; Stokes, INVENTOR(S):

Elaine Sophie Elizabeth; Waterson, David

PATENT ASSIGNEE(S): Zeneca Limited, UK; Brown, George Robert; Newcombe,

Nicholas John; Stokes, Elaine Sophie Elizabeth;

Waterson, David

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	PATENT NO.						KIND DATE			API	PLI	CAT		D	ATE					
WO	9806	705			A1	A1 19980219				WO	19	97-0		1	9970	725				
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							GE,													
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	HU 9902890					ни 1999-2890								19970725 19970725 19970725						
JP	JP 2000516602										JP 1998-509469						19970725 19970725 3E, MC, PT, 19970725 19970725 19970725 19970725 19970725 19990212 19990213 19960814			
	AT 230399					T 20030115					AT 1997-933774						9970	725		
NO	9900	663			A 1999041			0412							1					
US	6093	718			Α		2000				1999-242309					1	9990	212		
KR	2000	0299	84		A 200			00525			1999-701247				1	9990	213			
PRIORIT:	Y APP	LN.	INFO	.:						GB 1996-17060						A 1	9960	814		
																	9970	214		
										WO	19	97-0	GB20.	29		W 1	9970	725		

OTHER SOURCE(S): MARPAT 128:192661

GΙ

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AΒ
     Title compds. [I; T1, T3 = N, CR; R = H, alkyl, alkenyl, alkynyl; R1 = H,
     amino, halo, cyano, alkyl, alkylamino, dialkylamino, alkoxy; m = 1, 2; T2
     = CH, N; Q = (substituted) Ph, naphthyl, phenylalkenyl, heteroaryl; Q1 =
     (CH2)a; Q2 = (CH2)b; Q3 = (CH2)c; Q4 = (CH2)d; X = 0, CO, S, SO, SO2, CH2;
     a, b = 2, 3; c, d = 1, 2], were prepared as antihypercholesteremics. Thus,
     4-[1-(4-pyrimidiny1)piperazin-4-ylcarbony1]piperidine in CH2C12 was
     treated with a mixture of 4-chlorophenylsulfonyl chloride and Et3N in CH2Cl2
     under ice cooling followed by stirring for 18 h at room temperature to give 26%
     1-(4-chlorophenylsulfonyl)-4-[1-(4-pyrimidinyl)piperazin-4-
     ylcarbonyl]piperidine. The latter at 5 mg/kg orally in rats gave 72%
     inhibition of cholesterol biosynthesis.
     179050-27-2P 179050-28-3P 179050-48-7P
     179050-49-8P 188526-43-4P 188526-44-5P
     188526-45-6P 188526-46-7P 188526-47-8P
     188526-48-9P 188526-49-0P 188526-50-3P
     188526-51-4P 188526-52-5P 188526-53-6P
     188526-54-7P 188526-55-8P 188526-56-9P
     188526-57-0P 188526-58-1P 188526-59-2P
     188526-60-5P 188526-61-6P 188526-62-7P
     188526-63-8P 188526-65-0P 188526-66-1P
     188526-67-2P 188526-68-3P 188526-69-4P
     188526-70-7P 188526-71-8P 188526-76-3P
     188526-77-4P 188526-78-5P 188526-79-6P
     188526-80-9P 188526-81-0P 188526-82-1P
     188526-83-2P 188526-84-3P 188526-85-4P
     188526-86-5P 188526-87-6P 188526-88-7P
     188526-89-8P 188526-93-4P 188526-95-6P
     188526-96-7P 188526-97-8P 188526-98-9P
     188526-99-0P 188527-00-6P 203522-33-2P
     203522-38-7P 203522-40-1P 203522-42-3P
     203522-44-5P 203522-46-7P 203522-48-9P
     203522-51-4P 203522-53-6P 203522-54-7P
     203522-55-8P 203522-57-0P 203522-59-2P
     203522-60-5P 203522-61-6P 203522-73-0P
     203522-74-1P 203522-75-2P 203522-78-5P
     203522-79-6P 203522-80-9P 203522-81-0P
     203522-83-2P 203522-85-4P 203522-87-6P
     203522-89-8P 203522-93-4P 203522-96-7P
     203522-97-8P 203522-98-9P 203523-00-6P
     203523-02-8P 203523-05-1P 203523-06-2P
     203574-71-4P 203574-72-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of pyrimidinylpiperidinylcarbonylpiperazines and related
        compds. as inhibitors of oxidosqualene cyclase)
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RN 179050-27-2 CAPLUS

CN Methanone, [1-(2-amino-6-methyl-4-pyrimidinyl)-4-piperidinyl][4-(2-naphthalenylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 179050-28-3 CAPLUS

CN Piperazine, 1-[[2-(4-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-48-7 CAPLUS

CN Methanone,  $[4-[(6-\text{chloro}-2-\text{naphthalenyl})\,\text{sulfonyl}]-1-\text{piperazinyl}][1-(4-\text{pyrimidinyl})-4-\text{piperidinyl}]-$  (CA INDEX NAME)

RN 179050-49-8 CAPLUS

CN Methanone, [1-(2-amino-4-pyrimidinyl)-4-piperidinyl][4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-43-4 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-44-5 CAPLUS

CN Methanone, [4-(phenylmethyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-45-6 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-46-7 CAPLUS

CN Benzonitrile, 3-chloro-4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-47-8 CAPLUS

CN Methanone, [4-[(3,4-dichlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-48-9 CAPLUS

CN Methanone, [4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-49-0 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-50-3 CAPLUS

CN Benzonitrile, 2-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-51-4 CAPLUS

CN Methanone, [4-[(2,4-difluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-52-5 CAPLUS

CN Methanone, [4-[(4-butoxyphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-53-6 CAPLUS

CN Methanone, [4-[[4-(1,1-dimethylethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-54-7 CAPLUS

CN Methanone, [4-[[4-(1-methylethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-55-8 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-(2-thienylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 188526-56-9 CAPLUS

CN Methanone, [4-[(5-chloro-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-57-0 CAPLUS

CN Methanone, [4-[(2,5-dichloro-3-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

10/553,803

RN 188526-58-1 CAPLUS

CN Methanone, [4-[(5-bromo-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-59-2 CAPLUS

CN Methanone, [4-[(4,5-dibromo-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-60-5 CAPLUS

CN Methanone, [4-[(4,5-dichloro-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-61-6 CAPLUS

CN Methanone, [4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-62-7 CAPLUS

CN Methanone, [4-[[5-(2-pyridinyl)-2-thienyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-63-8 CAPLUS

CN Methanone, [4-[(3,5-dimethyl-4-isoxazolyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A

RN 188526-65-0 CAPLUS

CN Methanone, [4-[(4-fluoro-3,5-dimethylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-66-1 CAPLUS

CN Methanone, [4-[(2,5-dibromo-3,6-difluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-67-2 CAPLUS

CN Methanone, [4-[(4-iodophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-68-3 CAPLUS

CN Acetamide, N-[4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]phenyl]- (CA INDEX NAME)

RN 188526-69-4 CAPLUS

CN Methanone, [4-(phenylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-70-7 CAPLUS

CN Methanone, [4-[(4-ethylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

10/553,803

RN 188526-71-8 CAPLUS

CN Methanone, [4-[(4-propylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-76-3 CAPLUS

CN Methanone, [4-[(4-methylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-77-4 CAPLUS

CN Methanone, [4-[(2,5-dibromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-78-5 CAPLUS

CN Methanone, [4-[[3,5-bis(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-79-6 CAPLUS

CN Methanone, [4-[(4-nitrophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-80-9 CAPLUS

CN Methanone, [4-[(4-chloro-3-nitrophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-81-0 CAPLUS

CN Benzoic acid, 2-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)

RN 188526-82-1 CAPLUS

CN Methanone, [4-[(3,4-dibromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-83-2 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[(2,4,5-trichlorophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-84-3 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[(2,4,6-trimethylphenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-85-4 CAPLUS

CN Methanone, [4-[(3,5-dichlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-86-5 CAPLUS

CN Methanone, [4-[(2-chloro-4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-87-6 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-88-7 CAPLUS

CN Methanone, [4-[[2-chloro-4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-89-8 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-, methyl ester (CA INDEX NAME)

RN 188526-93-4 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(5-chloro-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-95-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-96-7 CAPLUS

CN Methanone, [4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-97-8 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]carbonyl]- (CA INDEX NAME)

RN 188526-98-9 CAPLUS

CN Piperazine, 1-(4-bromobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 188526-99-0 CAPLUS

CN Piperazine, 1-(4-fluorobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

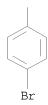
RN 188527-00-6 CAPLUS

CN Piperazine, 1-(4-chlorobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 203522-33-2 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A



RN 203522-38-7 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A



RN 203522-40-1 CAPLUS

CN Methanone, [hexahydro-4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1H-1,4-diazepin-1-yl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A

RN 203522-42-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A



RN 203522-44-5 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(6-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 2-A

RN 203522-46-7 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][4-methyl-1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-48-9 CAPLUS

CN Methanone, [1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl][4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 203522-51-4 CAPLUS

CN Methanone, [1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl][4-(phenylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 203522-53-6 CAPLUS

CN Methanone, [4-[(4-chlorophenyl) sulfonyl]-1-piperazinyl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-54-7 CAPLUS

CN Methanone, [1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 203522-55-8 CAPLUS

10/553,803

CN Methanone, [4-[[2-chloro-4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-57-0 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 1-A

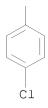
PAGE 2-A

RN 203522-59-2 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

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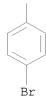


RN 203522-60-5 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]hexahydro-1H-1,4-diazepin-1-yl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A



RN 203522-61-6 CAPLUS

CN Methanone, [hexahydro-4-(phenylsulfonyl)-1H-1,4-diazepin-1-yl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-73-0 CAPLUS

CN 1H-1,4-Diazepine, 1-(4-fluorobenzoyl)hexahydro-4-[[1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 203522-74-1 CAPLUS

CN 1H-1,4-Diazepine, 1-[[1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]-4-(4-fluorobenzoyl)hexahydro-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 203522-75-2 CAPLUS

CN 1H-1,4-Diazepine, 1-(4-fluorobenzoyl)hexahydro-4-[[1-(6-methyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 203522-78-5 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-propyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-79-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-ethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-80-9 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-81-0 CAPLUS

CN Methanone, [4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-83-2 CAPLUS

CN Methanone, [4-[(3-chloro-4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-85-4 CAPLUS

CN Methanone, [4-[(3-fluorophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

10/553,803

RN 203522-87-6 CAPLUS

CN Methanone, [1-(2-methyl-4-pyrimidinyl)-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 203522-89-8 CAPLUS

CN Methanone, [1-(2-methyl-4-pyrimidinyl)-4-piperidinyl][4-(2-thienylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 203522-93-4 CAPLUS

CN Methanone, [4-[(5-chloro-2-thienyl)sulfonyl]-1-piperazinyl][1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-96-7 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-ethyl-4-pyrimidinyl)-4-methyl-4-piperidinyl]- (CA INDEX NAME)

RN 203522-97-8 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][4-ethyl-1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203522-98-9 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-(2-propen-1-yl)-4-piperidinyl]- (CA INDEX NAME)

RN 203523-00-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][4-methyl-1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203523-02-8 CAPLUS

CN Methanone, [1-(6-methyl-4-pyrimidinyl)-4-piperidinyl][4-(phenylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 203523-05-1 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-[6-(methylamino)-4-pyrimidinyl]-4-piperidinyl]- (CA INDEX NAME)

RN 203523-06-2 CAPLUS

CN Methanone, [1-[6-(methylamino)-4-pyrimidinyl]-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 203574-71-4 CAPLUS

CN Piperazine, 1-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-4-[[(2,2,2-trifluoroethyl)phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

$$F_3C-CH_2-D1$$

RN 203574-72-5 CAPLUS

CN Piperazine, 1-[(2-chlorothienyl)sulfonyl]-4-[[1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O & N & S-D1 \\ \hline N & N & C-N & O \\ \hline N & O & N & O \\ \end{array}$$

IT 203519-19-1P 203520-06-3P 203520-07-4P

203520-66-5P 203520-91-6P 203520-93-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidinylpiperidinylcarbonylpiperazines and related compds. as inhibitors of oxidosqualene cyclase)

RN 203519-19-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(2,6-dimethyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 203520-06-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(2-chloro-6-methyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 203520-07-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(6-methyl-4-pyrimidinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 203520-66-5 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(6-chloro-4-pyrimidinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 203520-91-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(6-chloro-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 203520-93-8 CAPLUS

CN Methanone, [1-(6-chloro-4-pyrimidinyl)-4-piperidinyl][4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:542445 CAPLUS

DOCUMENT NUMBER: 127:234328

ORIGINAL REFERENCE NO.: 127:45732h, 45733a

TITLE: Preparation of pyridylpiperidinylcarbonylpiperazines

and related compounds as

antithrombotics/anticoagulants.

INVENTOR(S): Faull, Alan Wellington

PATENT ASSIGNEE(S): Zeneca Ltd., UK; Faull, Alan Wellington

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						DATE				LICAT							
WO	O 9729104				A1 19970814													
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		LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK	, MN,	MW,	MX,	NO,	NΖ,	PL,	PT,	
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US	6022	869			A		2000	0208								9980	804	
PRIORIT	PRIORITY APPLN. INFO.:									GB :	1996-	2294		1	A 1	9960	205	
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OTHER S	OTHER SOURCE(S):					MARPAT 127:23432												

AB Title compds. [I; T1, G1, G2 = CH, N; R1 = halo, CF3, OCF3, cyano, amino, OH, NO2, alkyl, alkoxy; L1 = (substituted) alkylene, 1,2-cycloalkylene, alkylenecarbonyl; R2, R3 = H, alkyl; R2R3 = (substituted) alkylene, methylenecarbonyl; R4 = CONR7(CH2)nSOpR8, CONH(CH2)qNR9R10, AY1; R7 = H; R8 = alkyl, Ph, phenylalkyl; R7R8 = alkylene; R9, R10 = H, alkyl, Ph, alkylphenyl, SOpR8, heteroaryl, COR11; R11 = H, alkyl, Ph, alkylphenyl; R14-R16 = H, alkyl; A = alkylene; Y1 = SOpR8, NHSO2R8, pyrrolidin-1-yl, piperidino, morpholino, piperazin-1-yl, etc.; m, p= 0-2; q = 2-4; X1 = O, S, SO, SO2, CO, CO2, CONR14, CR15R16; Q = (substituted) Ph, naphthyl,

phenylalkyl, heterocyclyl], were prepared Thus,  $4-(6-bromonaphth-2-ylsulfonyl)-2-carboxy-1-[1-(4-pyridyl)piperidin-4-ylcarbonyl]piperazine (preparation given) in DMF was treated with N-3-dimethylaminopropyl-N-ethylcarbodiimide, 1-hydroxybenzotriazole, and 2-(ethylthio)amine in DMF to give 44% <math>4-(6-bromonaphth-2-ylsulfonyl)-2-[N-2-(ethylthioethyl)carbamoyl]-1-[1-(4-pyridyl)piperidin-4-ylcarbonyl]piperazine. The latter inhibited Factor Xa with IC50 = 0.004 <math display="inline">\mu M$ .

IT 195153-83-4P 195153-84-5P 195153-85-6P 195153-86-7P 195153-87-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridylpiperidinylcarbonylpiperazines and related compds. as antithrombotics/anticoagulants)

RN 195153-83-4 CAPLUS

CN 2-Piperazinecarboxamide, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-N-[2-(ethylthio)ethyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 195153-84-5 CAPLUS

CN Thiomorpholine, 4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-2-piperazinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 195153-85-6 CAPLUS

CN Thiomorpholine, 4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-2-piperazinyl]carbonyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)

RN 195153-86-7 CAPLUS

CN 2-Piperazinecarboxamide, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-N-(tetrahydro-1,1-dioxido-3-thienyl)-(CA INDEX NAME)

RN 195153-87-8 CAPLUS

CN 2-Piperazinecarboxamide, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-N-[2-(dimethylamino)ethyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

IT 179050-61-4P 179050-62-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyridylpiperidinylcarbonylpiperazines and related compds. as antithrombotics/anticoagulants)

RN 179050-61-4 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179050-62-5 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

L16 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:259776 CAPLUS

DOCUMENT NUMBER: 126:238391

ORIGINAL REFERENCE NO.: 126:46129a, 46132a

TITLE: Preparation of (di)azinylcarbonyl(di)azines as

oxidosqualene cyclase inhibitors

INVENTOR(S): Brown, George Robert; Stokes, Elaine Sophie Elisabeth;

Waterson, David; Wood, Robin

PATENT ASSIGNEE(S): Zeneca Limited, UK; Brown, George Robert; Stokes,

Elaine Sophie Elisabeth; Waterson, David; Wood, Robin

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT	KIND				APPLICATION NO.													
WO										WO 1996-GB1985									
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AТ	JP 11511161 AT 287715						20050215			AT 1996-927782				19960814					
	US 6090813																		
	PRIORITY APPLN. INFO.:							0,10			1995-					9950			
	• •							1996-					9960						
OTHER SO	OTHER SOURCE(S):						126:	126:238391				0210				3300			

OTHER SOURCE(S): MARPAT 126:238391

GΙ

AΒ Title compds. [I; A = bond or alkylene; G, T1-T3 = CH or N (T2  $\neq$  T3 = CH); Q = cycloalkyl, heterocyclyl, phenyl(alkyl), etc.; R1 = H, halo, NH2, cyano, alkyl, alkoxy; X = 0, SOO-2, CO, CONH, etc.; G1, G2 = 1 or 2 CH2; G3, G4 = 0 or 1 CH2; m = 1 or 2] were prepared Thus, 1-(4-pyridyl)piperidine-4-carbonyl chloride (preparation given) was amidated by 3-methyl-1-(2-naphthylsulfonyl)piperazine to give title compound II. Data for biol. activity of 1 prepared I were given. 179049-56-0P 179049-81-1P 179049-82-2P ΙT 179049-93-5P 179049-94-6P 179049-95-7P 179049-96-8P 179049-98-0P 179049-99-1P 179050-00-1P 179050-03-4P 179050-05-6P 179050-06-7P 179050-07-8P 179050-09-0P 179050-10-3P 179050-11-4P 179050-12-5P 179050-23-8P 179050-27-2P 179050-28-3P 179050-30-7P 179050-31-8P 179050-34-1P 179050-40-9P 179050-42-1P 179050-46-5P 179050-48-7P 179050-49-8P 188526-29-6P 188526-30-9P 188526-31-0P 188526-32-1P 188526-33-2P 188526-34-3P 188526-35-4P 188526-36-5P 188526-37-6P 188526-38-7P 188526-41-2P 188526-42-3P 188526-43-4P 188526-44-5P 188526-45-6P 188526-46-7P 188526-47-8P 188526-48-9P 188526-49-0P 188526-50-3P 188526-51-4P 188526-52-5P 188526-53-6P 188526-54-7P 188526-55-8P 188526-56-9P 188526-57-0P 188526-58-1P 188526-59-2P 188526-60-5P 188526-61-6P 188526-62-7P 188526-63-8P 188526-64-9P 188526-65-0P 188526-66-1P 188526-67-2P 188526-68-3P 188526-69-4P 188526-70-7P 188526-71-8P 188526-72-9P 188526-73-0P 188526-74-1P 188526-75-2P 188526-76-3P 188526-77-4P 188526-78-5P 188526-79-6P 188526-80-9P 188526-81-0P 188526-82-1P 188526-83-2P 188526-84-3P 188526-85-4P

188526-86-5P 188526-87-6P 188526-88-7P 188526-89-8P 188526-93-4P 188526-95-6P 188526-96-7P 188526-97-8P 188526-98-9P

## 10/553,803

188526-99-0P 188527-00-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of (di)azinylcarbonyl(di)azines as oxidosqualene cyclase inhibitors)

RN 179049-56-0 CAPLUS

CN Methanone, [4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179049-81-1 CAPLUS

CN Methanone, [4-[(8-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179049-82-2 CAPLUS

CN 2-Piperazinecarboxylic acid, 1-(2-naphthalenylsulfonyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179049-93-5 CAPLUS

CN Piperazine, 1-[[2-(4-methylphenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-94-6 CAPLUS

CN Piperazine, 1-[[2-(2-methylphenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-95-7 CAPLUS

CN Piperazine, 1-[[2-(4-fluorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-96-8 CAPLUS

CN Piperazine, 1-[[2-(2-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-98-0 CAPLUS

CN Piperazine, 1-[[2-(3,4-dichlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-99-1 CAPLUS

CN Piperazine, 1-[[2-(4-bromophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-00-1 CAPLUS

CN Piperazine, 1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-4-[[2-[4-(trifluoromethyl)phenyl]ethenyl]sulfonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-03-4 CAPLUS

CN Methanone, [4-[(7-ethoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-06-7 CAPLUS

CN Methanone, [4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-07-8 CAPLUS

CN Methanone, [4-[(6-methoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-09-0 CAPLUS

CN Methanone, [4-[(6-fluoro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-10-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-11-4 CAPLUS

CN Methanone, [4-([1,1'-biphenyl]-4-ylsulfonyl)-1-piperazinyl][1-(4-

pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-12-5 CAPLUS

CN Methanone, [4-[(4'-chloro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-23-8 CAPLUS

CN Methanone, [2-methyl-4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-27-2 CAPLUS

CN Methanone, [1-(2-amino-6-methyl-4-pyrimidinyl)-4-piperidinyl][4-(2-naphthalenylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 179050-28-3 CAPLUS

CN Piperazine, 1-[[2-(4-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-30-7 CAPLUS

CN Methanone, [4-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-31-8 CAPLUS

CN Methanone, [4-[(3',5'-dichloro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-34-1 CAPLUS

CN Methanone, [4-[(4-iodophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-40-9 CAPLUS

CN Methanone, [4-[[4-(2-pyridinyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-42-1 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179050-46-5 CAPLUS

CN Methanone, [4-(2-naphthalenylsulfonyl)-3-(phenylmethyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-48-7 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-49-8 CAPLUS

CN Methanone, [1-(2-amino-4-pyrimidinyl)-4-piperidinyl][4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-29-6 CAPLUS

CN Methanone, [4-[(4-fluoro-3,5-dimethylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-30-9 CAPLUS

CN Methanone, [4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-31-0 CAPLUS

CN Methanone, [4-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

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RN 188526-32-1 CAPLUS

Methanone, [1-(4-pyridinyl)-4-piperidinyl][4-[(2,4,6-trimethylphenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-33-2 CAPLUS

CN Methanone, [4-[(2-nitrophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

CN

RN 188526-34-3 CAPLUS

CN Methanone, [4-(phenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-35-4 CAPLUS

CN Methanone, [4-[(5-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-36-5 CAPLUS

CN Methanone, [4-[(3-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-37-6 CAPLUS

CN Piperazine, 1-(2-naphthalenylcarbonyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 188526-38-7 CAPLUS

CN Methanone, [4-(phenylmethyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-41-2 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-42-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)methyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-43-4 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(2-methyl-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-44-5 CAPLUS

CN Methanone, [4-(phenylmethyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-45-6 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-46-7 CAPLUS

CN Benzonitrile, 3-chloro-4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-47-8 CAPLUS

CN Methanone, [4-[(3,4-dichlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-48-9 CAPLUS

CN Methanone, [4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-49-0 CAPLUS

CN Methanone, [4-[(4-chlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-50-3 CAPLUS

CN Benzonitrile, 2-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 188526-51-4 CAPLUS

CN Methanone, [4-[(2,4-difluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-52-5 CAPLUS

CN Methanone, [4-[(4-butoxyphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-53-6 CAPLUS

CN Methanone, [4-[[4-(1,1-dimethylethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-54-7 CAPLUS

CN Methanone, [4-[[4-(1-methylethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-55-8 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-(2-thienylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 188526-56-9 CAPLUS

CN Methanone, [4-[(5-chloro-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-57-0 CAPLUS

CN Methanone, [4-[(2,5-dichloro-3-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-58-1 CAPLUS

CN Methanone, [4-[(5-bromo-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-

pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-59-2 CAPLUS

CN Methanone, [4-[(4,5-dibromo-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-60-5 CAPLUS

CN Methanone, [4-[(4,5-dichloro-2-thienyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-61-6 CAPLUS

CN Methanone, [4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-62-7 CAPLUS

CN Methanone, [4-[[5-(2-pyridinyl)-2-thienyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-63-8 CAPLUS

CN Methanone, [4-[(3,5-dimethyl-4-isoxazolyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

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PAGE 2-A

RN 188526-64-9 CAPLUS

CN Methanone, [4-(cyclohexylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-65-0 CAPLUS

CN Methanone, [4-[(4-fluoro-3,5-dimethylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-66-1 CAPLUS

CN Methanone, [4-[(2,5-dibromo-3,6-difluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-67-2 CAPLUS

CN Methanone, [4-[(4-iodophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-68-3 CAPLUS

CN Acetamide, N-[4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]phenyl]- (CA INDEX NAME)

RN 188526-69-4 CAPLUS

CN Methanone, [4-(phenylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-70-7 CAPLUS

CN Methanone, [4-[(4-ethylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-71-8 CAPLUS

CN Methanone, [4-[(4-propylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-72-9 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[(2,2,2-trifluoroethyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-73-0 CAPLUS

CN Methanone, [4-(butylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{bmatrix} 0 & & & & \\ S & Bu-n & & & \\ C & N & & O \\ \end{bmatrix}$$

RN 188526-74-1 CAPLUS

CN Methanone, [4-[(1-methylethyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-75-2 CAPLUS

CN Methanone, [4-(methylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{array}{c|c} O & O \\ \parallel & S - Me \\ \hline N & N & O \\ \hline \end{array}$$

RN 188526-76-3 CAPLUS

CN Methanone, [4-[(4-methylphenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-77-4 CAPLUS

CN Methanone, [4-[(2,5-dibromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-78-5 CAPLUS

CN Methanone, [4-[[3,5-bis(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-79-6 CAPLUS

CN Methanone, [4-[(4-nitrophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-80-9 CAPLUS

CN Methanone, [4-[(4-chloro-3-nitrophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-81-0 CAPLUS

CN Benzoic acid, 2-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)

RN 188526-82-1 CAPLUS

CN Methanone, [4-[(3,4-dibromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-83-2 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[(2,4,5-trichlorophenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-84-3 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[(2,4,6-trimethylphenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-85-4 CAPLUS

CN Methanone, [4-[(3,5-dichlorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-86-5 CAPLUS

CN Methanone, [4-[(2-chloro-4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-87-6 CAPLUS

CN Methanone, [1-(4-pyrimidinyl)-4-piperidinyl][4-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 188526-88-7 CAPLUS

CN Methanone, [4-[[2-chloro-4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-89-8 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-, methyl ester (CA INDEX NAME)

RN 188526-93-4 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(5-chloro-4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-95-6 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-96-7 CAPLUS

CN Methanone, [4-[(4-fluorophenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 188526-97-8 CAPLUS

CN Benzonitrile, 4-[[4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]carbonyl]- (CA INDEX NAME)

RN 188526-98-9 CAPLUS

CN Piperazine, 1-(4-bromobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 188526-99-0 CAPLUS

CN Piperazine, 1-(4-fluorobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

## 10/553,803

RN 188527-00-6 CAPLUS

CN Piperazine, 1-(4-chlorobenzoyl)-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

IT 179050-76-1P 179051-10-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of (di)azinylcarbonyl(di)azines as oxidosqualene cyclase inhibitors)

RN 179050-76-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 179051-10-6 CAPLUS

CN 2-Piperazinecarboxylic acid, 1-(phenylmethyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

L16 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:455760 CAPLUS

DOCUMENT NUMBER: 125:114690

ORIGINAL REFERENCE NO.: 125:21531a,21534a

TITLE: Preparation of aminoheterocyclic derivatives as

antithrombotic or anticoagulant agents

APPLICATION NO.

DATE

INVENTOR(S): Faull, Alan Wellington; Mayo, Colette Marie; Preston,

John; Stocker, Andrew

PATENT ASSIGNEE(S): Zeneca Limited, UK SOURCE: PCT Int. Appl., 161 pp.

CODEN: PIXXD2

KIND DATE

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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GΙ

AB The title compds. [I; G1, G2, G3 = CH, N; m = 1, 2; R1 = H, halo, C1-4 alkyl; M1 = (substituted) piperidino, piperazino, etc.; A = bond, C1-4 alkylene; M2 = piperazino, etc.; M3 = bond, etc.; X = S02; Q = naphthyl, heterocyclyl] were prepared and formulated. Treatment of 1-(4-pyridyl)piperidine-4-carboxylic acid with SOC12 followed by addition of 1-tert-butoxycarbonylpiperazine, deprotection of the intermediate II (Y = Boc) with HC1/Et2O and reaction of piperazine II.3HC1 (Y = H) with 2-naphthylsulfonyl chloride afforded I [G1, G2, G3 = CH; R1 = H; M1 = piperidino; A, M3 = bond; M2 = piperazino; X = S02; Q = 2-naphthyl]. In general, compds. I showed IC50 of 0.001-25 μM against Factor Xa and of > 50 μM against thrombin.

Ι

IT 179050-42-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of aminoheterocyclic derivs. as antithrombotic or anticoagulant agents)

RN 179050-42-1 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

IT 179049-56-0P 179049-65-1P 179049-81-1P 179049-82-2P 179049-91-3P 179049-92-4P 179049-93-5P 179049-94-6P 179049-95-7P 179049-96-8P 179049-97-9P 179049-98-0P 179049-99-1P 179050-00-1P 179050-01-2P 179050-02-3P 179050-03-4P 179050-04-5P 179050-05-6P 179050-06-7P 179050-07-8P 179050-08-9P 179050-09-0P 179050-10-3P

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     179050-20-5P 179050-22-7P 179050-23-8P
     179050-24-9P 179050-25-0P 179050-26-1P
     179050-27-2P 179050-28-3P 179050-29-4P
     179050-30-7P 179050-31-8P 179050-32-9P
     179050-33-0P 179050-34-1P 179050-35-2P
     179050-36-3P 179050-37-4P 179050-38-5P
     179050-39-6P 179050-40-9P 179050-41-0P
     179050-43-2P 179050-44-3P 179050-45-4P
     179050-46-5P 179050-48-7P 179050-49-8P
     179050-50-1P 179050-51-2P 179050-52-3P
     179050-56-7P 179050-58-9P 179050-59-0P
     179050-60-3P 179050-61-4P 179050-62-5P
     179050-63-6P 179050-64-7P 179050-65-8P
     179050-66-9P 179050-69-2P 179051-81-1P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of aminoheterocyclic derivs. as antithrombotic or anticoagulant
        agents)
RN
     179049-56-0 CAPLUS
CN
     Methanone, [4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-
     piperidinyl]- (CA INDEX NAME)
```

RN 179049-65-1 CAPLUS
CN Methanone, [4-(1-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4 piperidinyl]- (CA INDEX NAME)

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RN 179049-81-1 CAPLUS

CN Methanone, [4-[(8-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179049-82-2 CAPLUS

CN 2-Piperazinecarboxylic acid, 1-(2-naphthalenylsulfonyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179049-91-3 CAPLUS

CN Methanone, [1-(4-pyridinyl)-4-piperidinyl][4-[[5-(2-pyridinyl)-2-thienyl]sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 179049-92-4 CAPLUS

CN Piperazine, 1-[[(1E)-2-(4-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-93-5 CAPLUS

CN Piperazine, 1-[[2-(4-methylphenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

RN 179049-94-6 CAPLUS

CN Piperazine, 1-[[2-(2-methylphenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-95-7 CAPLUS

CN Piperazine, 1-[[2-(4-fluorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-96-8 CAPLUS

CN Piperazine, 1-[[2-(2-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

RN 179049-97-9 CAPLUS

CN Piperazine, 1-[[2-(3-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-98-0 CAPLUS

CN Piperazine, 1-[[2-(3,4-dichlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179049-99-1 CAPLUS

CN Piperazine, 1-[[2-(4-bromophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

RN 179050-00-1 CAPLUS

CN Piperazine, 1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-4-[[2-[4-(trifluoromethyl)phenyl]ethenyl]sulfonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-01-2 CAPLUS

CN Methanone, [4-[(4-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-02-3 CAPLUS

CN Methanone, [4-[(7-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-03-4 CAPLUS

CN Methanone, [4-[(7-ethoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-04-5 CAPLUS

CN Methanone, [4-[(6,7-dimethoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-05-6 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-06-7 CAPLUS

CN Methanone, [4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-07-8 CAPLUS

CN Methanone, [4-[(6-methoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-08-9 CAPLUS

CN Methanone, [4-[(7-methoxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-09-0 CAPLUS

CN Methanone, [4-[(6-fluoro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-10-3 CAPLUS

CN Methanone, [4-[(4-bromophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-11-4 CAPLUS

CN Methanone, [4-([1,1'-biphenyl]-4-ylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-12-5 CAPLUS

CN Methanone, [4-[(4'-chloro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-13-6 CAPLUS

CN Methanone, [4-(3-dibenzofuranylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-14-7 CAPLUS

CN 2-Piperazinecarboxylic acid, 1-(2-naphthalenylsulfonyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 179050-15-8 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-(2-naphthalenylsulfonyl)-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179050-17-0 CAPLUS

CN 2-Piperazinone, 1-(2-naphthalenylmethyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

$$CH_2$$
 $N$ 
 $C$ 

RN 179050-20-5 CAPLUS

CN Methanone, [hexahydro-4-(2-naphthalenylsulfonyl)-1H-1,4-diazepin-1-yl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN

 $179050-22-7 \quad \text{CAPLUS} \\ \text{Piperazine, 2,5-dimethyl-1-(2-naphthalenylsulfonyl)-4-[[1-(4-pyridinyl)-4-(2-naphthalenylsulfonyl)-4-(3-naphthalenylsulfonylsul$ CN piperidinyl]carbonyl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

179050-23-8 CAPLUS RN

CN Methanone, [2-methyl-4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-24-9 CAPLUS

CN Methanone, [3-methyl-4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-25-0 CAPLUS

CN Piperazine, 4-[[2-(4-chlorophenyl)ethenyl]sulfonyl]-2-methyl-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-26-1 CAPLUS

CN Methanone, [4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-27-2 CAPLUS

CN Methanone, [1-(2-amino-6-methyl-4-pyrimidinyl)-4-piperidinyl][4-(2-naphthalenylsulfonyl)-1-piperazinyl]- (CA INDEX NAME)

RN 179050-28-3 CAPLUS

CN Piperazine, 1-[[2-(4-chlorophenyl)ethenyl]sulfonyl]-4-[[1-(4-pyrimidinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 179050-29-4 CAPLUS

CN Methanone, [4-[(4'-methyl[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-30-7 CAPLUS

CN Methanone, [4-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-31-8 CAPLUS

CN Methanone, [4-[(3',5'-dichloro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-32-9 CAPLUS

CN Methanone, [4-[(4'-chloro[1,1'-biphenyl]-3-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-33-0 CAPLUS

CN Methanone, [4-([1,1'-biphenyl]-3-ylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-34-1 CAPLUS

CN Methanone, [4-[(4-iodophenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-35-2 CAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]-, ethyl ester (CA INDEX NAME)

RN 179050-36-3 CAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 4'-[[4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

RN 179050-37-4 CAPLUS

CN Methanone, [4-[(3',5'-dichloro[1,1'-biphenyl]-3-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{bmatrix} C1 \\ 0 \\ C \end{bmatrix}$$

RN 179050-38-5 CAPLUS

CN Methanone, [4-[(4'-nitro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

$$\begin{bmatrix} 0 & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\$$

RN 179050-39-6 CAPLUS

CN Methanone, [4-[(4'-chloro-2'-nitro[1,1'-biphenyl]-4-yl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-40-9 CAPLUS

CN Methanone, [4-[[4-(2-pyridinyl)phenyl]sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-41-0 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-(2-naphthalenylsulfonyl)-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 179050-43-2 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 179050-44-3 CAPLUS

CN Piperazine, 4-(2-naphthalenylsulfonyl)-2-(1-piperidinylcarbonyl)-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 179050-45-4 CAPLUS

CN Piperazine, 1-(2-naphthalenylsulfonyl)-2-(1-piperidinylcarbonyl)-4-[[1-(4-pyridinyl)-1-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 179050-46-5 CAPLUS

CN Methanone, [4-(2-naphthalenylsulfonyl)-3-(phenylmethyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-48-7 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-49-8 CAPLUS

CN Methanone, [1-(2-amino-4-pyrimidinyl)-4-piperidinyl][4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 179050-50-1 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(5,6-dichloro-4-pyridazinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-51-2 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridazinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-52-3 CAPLUS

CN Methanone, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4,6-dichloro-1,3,5-triazin-2-yl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-56-7 CAPLUS

CN Methanone, [2-(hydroxymethyl)-4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-58-9 CAPLUS

RN 179050-59-0 CAPLUS

CN Methanone, [4-[(6-hydroxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]-, sodium salt (1:1) (CA INDEX NAME)

Na

RN 179050-60-3 CAPLUS

CN 2-Piperazineacetic acid, 1-(2-naphthalenylsulfonyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, methyl ester (CA INDEX NAME)

RN 179050-61-4 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

RN 179050-62-5 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (CA INDEX NAME)

RN 179050-63-6 CAPLUS

CN Morpholine, 4-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-2-piperazinyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 179050-64-7 CAPLUS

CN Methanone, [4-(2-naphthalenylsulfonyl)-1-piperazinyl][1-(1,3,5-triazin-2-yl)-4-piperidinyl]- (CA INDEX NAME)

RN 179050-65-8 CAPLUS

CN Methanone, [1-(2-amino-6-methyl-4-pyrimidinyl)-4-piperidinyl][4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]- (CA INDEX NAME)

RN 179050-66-9 CAPLUS

CN 2-Piperazinecarboxylic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, methyl ester (CA INDEX NAME)

RN 179050-69-2 CAPLUS

CN Glycine, N-[[4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-2-piperazinyl]carbonyl]-, methyl ester (CA INDEX NAME)

RN 179051-81-1 CAPLUS

CN Piperazine, 1-[(2-phenylethenyl)sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, (E)- (9CI) (CA INDEX NAME)

IT 179050-76-1P 179051-10-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoheterocyclic derivs. as antithrombotic or anticoagulant agents)

RN 179050-76-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 179051-10-6 CAPLUS

CN 2-Piperazinecarboxylic acid, 1-(phenylmethyl)-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

L14 ANSWER 874 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 226392-07-0 REGISTRY

ED Entered STN: 26 Jun 1999

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(4-methyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C23 H34 N4 O6 S

CI COM

SR CA

L14 ANSWER 870 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 303998-78-9 REGISTRY

ED Entered STN: 22 Nov 2000

CN Methanone, [1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl][4-(phenylmethyl)-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]carbonyl]-4-(phenylmethyl)- (9CI)

MF C23 H26 C1 F3 N4 O

SR Chemical Library

Supplier: Bionet Research Ltd.

LC STN Files: CHEMCATS

L14 ANSWER 871 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 303998-74-5 REGISTRY

ED Entered STN: 22 Nov 2000

CN Methanone, [1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl][4-(diphenylmethyl)-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]carbonyl]-4-(diphenylmethyl)- (9CI)

MF C29 H30 C1 F3 N4 O

SR Chemical Library

Supplier: Bionet Research Ltd.

LC STN Files: CHEMCATS

L14 ANSWER 872 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 303150-27-8 REGISTRY

ED Entered STN: 17 Nov 2000

CN Methanone, [1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl](4-methyl-1-piperazinyl)- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]carbonyl]-4-methyl- (9CI)

MF C17 H22 C1 F3 N4 O

SR Chemical Library

Supplier: Bionet Research Ltd.

LC STN Files: CHEMCATS

L14 ANSWER 873 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 250713-86-1 REGISTRY

ED Entered STN: 14 Dec 1999

CN Ethanone, 1-[4-[4-[4-(4-methoxyphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(4-acetylphenyl)-4-piperidinyl]carbonyl]-4-(4-methoxyphenyl)- (9CI)

MF C25 H31 N3 O3

SR CAS Client Services

LC STN Files: CHEMCATS

L14 ANSWER 866 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-80-9 REGISTRY

ED Entered STN: 15 Dec 2000

CN 1-Piperazineacetic acid, 4-[[1-[4-[[tetrahydro-4-[(hydroxyamino)carbonyl]-2H-pyran-4-yl]sulfonyl]phenyl]-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

MF C26 H38 N4 O8 S

CI COM

SR CA

L14 ANSWER 867 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-78-5 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-hydroxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C24 H36 N4 O7 S

CI COM

SR CA

L14 ANSWER 868 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-70-7 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-phenylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C30 H40 N4 O6 S

CI COM

SR CA

L14 ANSWER 869 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN
RN 308821-68-3 REGISTRY
ED Entered STN: 15 Dec 2000
CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(2-phenylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)
MF C30 H40 N4 O6 S

CI COM SR CA

L14 ANSWER 862 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-90-1 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[3-(dimethylamino)propyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

MF C27 H43 N5 O6 S

CI COM

SR CA

L14 ANSWER 863 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-88-7 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C28 H41 N5 O7 S

CI COM

SR CA

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L14 ANSWER 864 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-86-5 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(1-methylethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C25 H38 N4 O6 S

CI COM

SR CA

L14 ANSWER 865 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-84-3 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, 4-[[4-[4-[(4-cyclopentyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy- (CA INDEX NAME)

MF C27 H40 N4 O6 S

CI COM

SR CA

L14 ANSWER 858 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308822-12-0 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-(2-pyrazinyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[(4-pyrazinyl-1-piperazinyl)carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (9CI)

MF C26 H34 N6 O6 S

CI COM

SR CA

L14 ANSWER 859 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308822-10-8 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[[4-(2-propen-1-yl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-(2-propenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (9CI)

MF C25 H36 N4 O6 S

CI COM

SR CA

N 2H-Pyran-4-carboxamide, 4-[[4-[4-[4-[2-(dimethylamino)ethyl]-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]tetrahydro-N-hydroxy-(CA INDEX NAME)

MF C26 H41 N5 O6 S

CI COM SR CA

L14 ANSWER 861 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308821-92-3 REGISTRY

ED Entered STN: 15 Dec 2000

CN 2H-Pyran-4-carboxamide, tetrahydro-N-hydroxy-4-[[4-[4-[4-[4-(2-methoxyethyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]- (CA INDEX NAME)

MF C25 H38 N4 O7 S

CI COM

SR CA

L14 ANSWER 854 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 443117-03-1 REGISTRY

ED Entered STN: 08 Aug 2002

CN 1-Piperazinecarboxylic acid, 4-[[1-(6-methoxy-2-benzothiazolyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

MF C21 H28 N4 O4 S

SR Chemical Library

Supplier: Interchim

LC STN Files: CHEMCATS

L14 ANSWER 855 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 439108-72-2 REGISTRY

ED Entered STN: 17 Jul 2002

CN 1,4-Naphthalenedione, 2-chloro-3-[4-[[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]carbonyl]-1-piperidinyl]- (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(3-chloro-1,4-dihydro-1,4-dioxo-2-naphthalenyl)-4-piperidinyl]carbonyl]-4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]- (9CI)

MF C26 H23 C12 F3 N4 O3

SR Chemical Library

Supplier: Bionet Research Ltd.

LC STN Files: CHEMCATS

L14 ANSWER 856 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 337919-71-8 REGISTRY

ED Entered STN: 24 May 2001

CN Methanone, [1-[3-chloro-5-(trifluoromethy1)-2-pyridiny1]-4-piperidiny1][4-(4-methoxypheny1)-1-piperaziny1]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]carbonyl]-4-(4-methoxyphenyl)- (9CI)

MF C23 H26 C1 F3 N4 O2

SR Chemical Library

Supplier: Bionet Research Ltd.

LC STN Files: CHEMCATS

L14 ANSWER 857 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 308822-15-3 REGISTRY

ED Entered STN: 15 Dec 2000

MF C28 H43 N5 O7 S

CI COM SR CA

L14 ANSWER 850 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 451500-95-1 REGISTRY

ED Entered STN: 16 Sep 2002

CN Methanone, [1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl][4-(2-fluorophenyl)-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl]carbonyl]-4-(2-fluorophenyl)- (9CI)

MF C25 H29 F N4 O S

SR Chemical Library

Supplier: Ambinter

LC STN Files: CHEMCATS

L14 ANSWER 851 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 451500-73-5 REGISTRY

ED Entered STN: 16 Sep 2002

CN Methanone, [4-(3-chlorophenyl)-1-piperazinyl][1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-(3-chlorophenyl)-4-[[1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl]carbonyl]- (9CI)

MF C25 H29 Cl N4 O S

SR Chemical Library

Supplier: Ambinter

LC STN Files: CHEMCATS

LC

L14 ANSWER 852 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 451500-71-3 REGISTRY

ED Entered STN: 16 Sep 2002

CN Methanone, [1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl](4-phenyl-1-piperazinyl)- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl]carbonyl]-4-phenyl- (9CI)

MF C25 H30 N4 O S

SR Chemical Library

Supplier: Ambinter STN Files: CHEMCATS

L14 ANSWER 853 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 443117-15-5 REGISTRY

ED Entered STN: 08 Aug 2002

CN Methanone, [1-(6-methoxy-2-benzothiazolyl)-4-piperidinyl][4-(2-pyridinyl)-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(6-methoxy-2-benzothiazolyl)-4-piperidinyl]carbonyl]-4-(2-pyridinyl)- (9CI)

MF C23 H27 N5 O2 S

SR Chemical Library

Supplier: Interchim

LC STN Files: CHEMCATS

L14 ANSWER 846 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN RN 605621-29-2 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(2,5-dimethylphenyl)-1-piperazinyl][1-(2-pyrimidinyl)-4piperidinyl] - (CA INDEX NAME)

OTHER CA INDEX NAMES:

Piperazine, 1-(2,5-dimethylphenyl)-4-[[1-(2-pyrimidinyl)-4piperidinyl]carbonyl]- (9CI)

MFC22 H29 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

RN 605621-28-1 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(3-chlorophenyl)-1-piperazinyl][1-(2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine 1-(3-chlorophenyl)-4-[[1-(2-pyrimidinyl)-4-

CN Piperazine, 1-(3-chlorophenyl)-4-[[1-(2-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI)

L14 ANSWER 847 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

MF C20 H24 C1 N5 O
SR Chemical Library
Supplier: AsInEx
LC STN Files: CHEMCATS

L14 ANSWER 848 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN RN 605621-27-0 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(3-methoxyphenyl)-1-piperazinyl][1-(2-pyrimidinyl)-4piperidinyl] - (CA INDEX NAME)

OTHER CA INDEX NAMES:

Piperazine, 1-(3-methoxyphenyl)-4-[[1-(2-pyrimidinyl)-4piperidinyl]carbonyl]- (9CI)

MFC21 H27 N5 O2

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 849 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605621-26-9 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [1-(2-pyrimidinyl)-4-piperidinyl][4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

Piperazine, 1-[[1-(2-pyrimidinyl)-4-piperidinyl]carbonyl]-4-[3-(trifluoromethyl)phenyl]- (9CI)

MFC21 H24 F3 N5 O

SR Chemical Library

Supplier: AsInEx

L14 ANSWER 842 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-23-2 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(5-chloro-2-methylphenyl)-1-piperazinyl][1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-(5-chloro-2-methylphenyl)-4-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI)

MF C23 H30 C1 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 843 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-22-1 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(3-chlorophenyl)-1-piperazinyl][1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-(3-chlorophenyl)-4-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI)

MF C22 H28 C1 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 844 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-21-0 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(2,3-dimethylphenyl)-1-piperazinyl][1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-(2,3-dimethylphenyl)-4-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI)

MF C24 H33 N5 O

SR Chemical Library
Supplier: AsInEx

L14 ANSWER 845 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-20-9 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl][4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]-4-[3-(trifluoromethyl)phenyl]- (9CI)

MF C23 H28 F3 N5 O

SR Chemical Library
Supplier: AsInEx

L14 ANSWER 838 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 651714-70-4 REGISTRY

ED Entered STN: 19 Feb 2004

CN 1-Piperazinecarboxylic acid, 4-[[1-[4-(trifluoromethyl)-2-pyrimidinyl]-4-piperidinyl]carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

MF C20 H28 F3 N5 O3

SR Chemical Library

Supplier: Maybridge plc

LC STN Files: CHEMCATS

L14 ANSWER 839 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605639-59-6 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, (4-phenyl-1-piperazinyl)[1-(2-pyrazinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-phenyl-4-[(1-pyrazinyl-4-piperidinyl)carbonyl]- (9CI)

MF C20 H25 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 840 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-25-4 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl](4-phenyl-1-piperazinyl)- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]-4-phenyl- (9CI)

MF C22 H29 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 841 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 605623-24-3 REGISTRY

ED Entered STN: 16 Oct 2003

CN Methanone, [4-(2,5-dimethylphenyl)-1-piperazinyl][1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-(2,5-dimethylphenyl)-4-[[1-(4,6-dimethyl-2-pyrimidinyl)-4-piperidinyl]carbonyl]- (9CI)

MF C24 H33 N5 O

SR Chemical Library

Supplier: AsInEx

LC STN Files: CHEMCATS

L14 ANSWER 834 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 752199-72-7 REGISTRY

ED Entered STN: 27 Sep 2004

CN 5-Quinoxalinecarboxamide, 3-[5-chloro-6-[4-[[4-(2-fluorobenzoyl)-1-piperazinyl]carbonyl]-1-piperidinyl]-3-pyridinyl]- (CA INDEX NAME)

MF C31 H29 Cl F N7 O3

CI COM

SR CA

L14 ANSWER 835 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 721880-38-2 REGISTRY

ED Entered STN: 03 Aug 2004

CN Methanone, [4-[(6-hydroxy-2-naphthalenyl)sulfonyl]-1-piperazinyl][1-(4-pyridinyl)-4-piperidinyl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Piperazine, 1-[(6-hydroxy-2-naphthalenyl)sulfonyl]-4-[[1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI)

MF C25 H28 N4 O4 S

CI COM

SR CA

L14 ANSWER 836 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 692724-71-3 REGISTRY

ED Entered STN: 13 Jun 2004

CN 4-Piperidinecarboxamide, 1-cyclopropyl-4-[[4-[4-[4-(2,3-dimethylphenyl)-1-piperazinyl]carbonyl]-1-piperidinyl]phenyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

MF C33 H45 N5 O5 S

CI COM

SR CA

L14 ANSWER 837 OF 874 REGISTRY COPYRIGHT 2008 ACS on STN

RN 685884-41-7 REGISTRY

ED Entered STN: 26 May 2004

CN 1-Piperazinecarboxylic acid, 4-[[1-(6-ethyl-2-benzothiazolyl)-4-piperidinyl]carbonyl]-, ethyl ester (CA INDEX NAME)

MF C22 H30 N4 O3 S

SR Chemical Library

Supplier: ChemDiv, Inc.

LC STN Files: CHEMCATS